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Addresses

THE FIELD FOR PROPHYLAXIS AMONG CHILDREN

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON DISEASES OF CHILDREN AT THE SIXTIETH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, 1909

THOMAS S. SOUTHWORTH, M.D.
NEW YORK

The passing of the old-time family physician and the threatened usurpation of his position by the specialist, of which frequent plaint was wont to be made some years ago, no longer occupies even the occasional attention of the lay press. Happily throughout the larger part of our country the old relation of the physician to the family is still maintained, though less stress is laid than formerly on the value of a personal knowledge of the temperament and maladies of a child's forbears, since modern thoroughness in history-taking furnishes the essential data.

To-day the well-equipped practitioner of medicine is in truth a many-sided specialist. The temporary eclipse which he may have suffered through the growth of the specialties has left him more than debtor to those who blazed the way through untried paths so clearly that a competent knowledge of the specialties has become the common property of all well-informed physicians.

With this broader outlook, new criteria of diagnosis and new measures of treatment, the responsibility of the physician for the welfare of his patient has proportionately increased, but in few directions has this responsibility advanced so rapidly as in that of the proper management of the child from infancy to puberty. During this period of phenomenal development, the foundations are laid of those factors which make most for success in after-life—a well-developed body, sound health, and a good digestion. In so far as these fall short of the normal, just so far does the individual miss his full effectiveness in the world's work.

We already know that the loss in this country from a single malady, tuberculosis, has been conservatively estimated at millions of dollars, but the monetary loss caused by the sum-total of physical underdevelopment and avoidable illness would, if measurable, startle the imagination.

The mere consideration of this matter would seem to smack too much of idle speculation were it not for the indisputable fact that we are already in the possession of prophylactic measures of every-day medicine which, if conscientiously applied to each member of the community, would produce incalculable results.

Few will deny that the recent victory of Japan was chiefly due to the maintenance of efficiency in her smaller standing army through the application of the principles of sanitation, which prevented its decimation by disease. What education, better food and better environment have already accomplished in enhancing the effectiveness of the American wage-earners, recruited, as they are, by inundating waves of foreign immigration, is already recognized and can and will be repeated in other directions. So long as it is considered good business policy to study and apply devices which make labor more effective, there is nothing vague or visionary in considering the possibility of applying to the future laborer health-saving devices which will make him physically and mentally fitter for his work.

Since the foundations of a sound physique are laid in infancy and childhood, and if neglected can not be rebuilt, the practical consideration of this question is peculiarly appropriate before this body of children's physicians. In infant mortality, with its enormous loss of potential life and force, we have at the start a concrete problem worthy of our most earnest consideration. We are accustomed in our pride to consider that through cumulative effort not only has the condition of the average infant been improved, but that a material reduction has been accomplished during recent decades in the percentage of infants who die during the first year of life. The researches of Newman in England and of Stowell in this country have recently indicated that, except in certain favored localities, this reduction is not so apparent as we had supposed.

This need not surprise us so greatly if we consider that the overcrowding of our cities, the swamping of our slums with ignorant and inferior classes of immigrants, and an increase in the cost of living out of proportion to the increase of wage, have tended in these centers to enhance rather than lessen those hereditary and congenital weaknesses which lie so largely at the bottom of the conditions which cause deaths in early infancy. When to this is added the steady decrease in maternal nursing, so that larger numbers of infants are exposed to the dangers of artificial feeding, we may readily understand why these factors have not been more markedly offset by the genuine achievements in pediatrics, and more especially by the dissemination of better methods of feeding infants.

The improvement of the antenatal conditions which we have mentioned lies rather in the domain of sociologic endeavor than in that of medicine, but the postnatal factors in early mortality, and especially the unwarranted decline of maternal nursing, offers a field where our influence may be strongly exerted. The medical profession has been partially aroused of late to the fact that women should be urged to nurse their infants, but if the matter is allowed to rest there the work is but half done, for it is further imperative that every assistance should be extended to these women to make the continuation of lactation possible.

A careful study of this problem, which has now extended over some years, has daily convinced me that but a comparatively small number of mothers decline to do their duty, while by far the majority of those who have been unable to nurse, or have prematurely weaned their infants, have been led to make this decision through the ignorance or neglect of their trusted advisers. By this I mean neglect to investigate the actual conditions present, and to correct errors in management, as well as ignorance of the simplest measures which favor a normal secretion from the breast.

In support of this statement, and as bearing on this subject, I may quote from the recently published report of the Special Committee on the Prevention of Blindness in the State of New York, which is significant in this connection as indicating the part played by midwives in controlling the early management of mother and infant in our large cities. The report says:

> In Chicago, in 1904, we find 86 per cent. of all births . . . reported by midwives. In Buffalo, N. Y., . . . nearly one-half the births in one year were attended by midwives. In New York City, in 1905, 43,834, or 42 per cent. of the whole number were attended by midwives. For the year 1907, in New York City, there were 68,186 births reported by physicians, and 52,536 reported by midwives. In September, 1908, the registered midwives in the five boroughs of New York City numbered 1,382.

Of the midwives themselves, the report states:

> Although they are largely employed, especially by foreigners, no adequate provision, with rare exceptions, is made for the examination of midwives before licenses are granted and registration allowed by the departments of health or authorized boards of examiners.

And again:

> Out of 500 midwives visited, less than 10 per cent. (50) could be qualified as capable, reliable midwives.

Yet these women determine the feeding of the infants, and are responsible for much unnecessary weaning.

We can not, however, shift the blame entirely to the shoulders of the midwives. Clinical records show that removal from the breast is countenanced or advised by medical men without adequate investigation or effort to continue the nursing. Dr. Allen's resolution, offered and adopted at the Chicago meeting of this Section, presents this matter with admirable conciseness to the medical profession:

> Resolved, That we strongly urge that at least as much thought and effort be expended to render the mother's milk suitable for the child, as is now expended on the subject of artificial food.

We recognize that not only is the development of the nursing child far more likely to be normal than that of the bottle-fed infant, but that its expectation of life and immunity from disease is greatly enhanced. In so far, then, as we can stay this wave of early weaning, we are doing genuinely constructive life-saving work, but our duty to the infant is not completed when we have simply assured its being breast-fed.

In a certain sense no child is so neglected as the child at the breast. Under the assumption that breast-feeding, if fairly competent, is capable of automatically producing the best results for the infant, the breast-fed baby too often passes from observation and is but rarely placed under continued medical supervision. Few parents realize that an infant who is doing fairly well, and only fairly well on the breast, is not attaining the fullest development of which it is capable. It is, therefore, not unusual for parents and even physicians to be content with an average weekly gain of four ounces during an early period, when the gain should be eight ounces or more, and solace themselves with the belief that the infant who is a pound or two under its normal weight is naturally only a small baby.

Such an infant, if the quantity of its mother's breast milk can not be improved, should, except perhaps in the hottest months, receive supplementary feedings. Supplementary feedings, for the breast-fed infant whose weight is standing still, conserve the breast-milk and turn the balance into satisfactory gains. In similar manner, and with greater certainty, for the infant who is gaining but slowly, a normal gain may be readily inaugurated, and who may say whether the difference between a normal and subnormal development may not be a saving factor at some future crisis? The question is not whether an infant is doing fairly well, but whether it is reasonably receiving all that it is capable of assimilating and transforming into normal growth.

Turning our attention now to the exclusively bottle-fed infant, we find ourselves much better equipped by the clinical investigations and newer methods of the past few years to cope with the difficult case.

The recognition, when they occur, of symptoms produced by imperfect digestion of the fats of cow's milk, and the handling of cases presenting these symptoms with lower fat percentages and malt soup preparations, add greatly to the possibilities of success. While both of these methods seem to allow the use of a somewhat larger amount of milk casein in the infant's food, there is just now to be noted an unfortunate tendency to forget in the employment of a very limited number of formulas what the intelligent use of the percentage system has taught us. Present experience seems to indicate, and doubtless the consensus of professional opinion will eventually declare, that the uniformly best results are to be obtained by incorporating such newer principles in the percentage system, thus maintaining a due regard for the individuality of each infant with reference to his assimilative powers.

Philanthropists who are interested in the distribution of ready prepared modified milk to the poor of our large cities should seriously consider whether they are achieving the greatest good in the best possible manner. Not only are the formulas distributed so few in number and so inelastic as to be unsuited to a certain proportion of the infants, but the system contributes very little to the education of the lower classes in proper methods of infant-feeding. While a commendable stop-gap for infant mortality, these doles of already prepared milk approach dangerously near the futile *panem et circenses* of the Roman Empire, which only served to hasten its dissolution.

Far more productive in its results, and of ultimately greater hopefulness for the offspring of the poor, is the work which is progressing in certain of our outdoor dispensaries for children; for these teach the mothers the right principles of infant-feeding, and through instruction in home preparation and care of the food are slowly but surely overcoming ignorance and tradition, and spreading a leaven which, passed along from neighbor to neighbor, can not fail to produce important results in more intelligent feeding of infants among the masses.

The supervision of the growth and development of the bottle-fed infant during the first two years of life leaves much to be desired. Here, even more than in the

ease of the infant at the breast, lies a field for wise effort, for in cow's milk feeding there is no physiologic adjustment of supply to demand. Every pound of normal growth is a valuable asset to the infant. Every period, long or short, during which the otherwise normal infant ceases to progress because of a failure to adjust his food to correspond to his power of assimilation, may have a definite influence on his future welfare.

This supervision can not safely be left to the mother or to the nurse. Especially is this true from the seventh to the twentieth month, when the development of the infant often lags from lack of intelligent direction. It is happily beginning to dawn on the more intelligent lay mind that money is better expended in securing periodical inspection and regulation of the infant's condition and diet than by waiting until disturbing symptoms present themselves before seeking the physician, and the results of the two methods when measured in health, body-weight and power of resistance are not to be compared.

Much as a properly adjusted diet is to be insisted on, diet is by no means the only factor which requires medical oversight. Next to a normal proportion of muscular tissue, the hemoglobin may be conservatively called the most important index of the child's resistance. Unless pallor be marked, it is rarely noted by parents. Fresh air, in abundance and at all hours, is one of the most effective hematinics. A drastic rearrangement of the infant's hygiene may be even more necessary than iron in producing improvement.

But fresh air may be of little avail unless the condition of the respiratory passages allows its free and unobstructed entrance to the lungs. Possibly in no single direction has as much been accomplished for the normal development of the child as by the attention given in recent years to obstructive conditions of the pharynx and nasopharynx caused by hypertrophied tonsils and adenoid tissue. That there is still much to be done, the thoughtful inspection of any group of children or of any school in session will make apparent. Thus far attention is rarely paid to these conditions until they have reached a marked stage. Is it wisdom to wait so long until the damage has been done—to wait for narrowing of the chest, non-expansion of the nasal passages, recurrent bronchitis from catarrhal extension, acute and chronic otitis, and permanent facial malformation, to take place before insisting on operative relief? Valid contraindications are but rarely present to an early operation of adenoidectomy, even before the expiration of the first year, if symptoms of mouth-breathing are present. With re-establishment of free nasal respiration, normal development is resumed, tonsillar hypertrophy is less apt to occur, and its minor degrees tend to remain stationary or to recede.

Through the effective medium of school inspection attention has been called to the deplorable neglect of children's teeth. The baleful influence of dental caries on the child's health is not fully appreciated. Not only do these imperfections militate against a proper mastication of the food, and the putrefying contents of the cavities furnish a favorable nidus for noxious organisms, but, as is now being pointed out by able dental surgeons, the premature loss of the first teeth has a serious effect on the normal development of the jaw and leads to irregularity in the eruption, position and apposition of the permanent teeth, with consequent malformations which handicap the child physically and socially. A normal facies, as well as sound health, is an important asset to the individual who must depend on his own resources to make his way in the world.

Among the organs of special sense, the eye, owing to many evident factors which lead to a prompter detection of any considerable deviation from the normal, has received vastly more attention than the ear. Only in the past few years has this latter organ begun to receive prophylactic consideration during the many infectious diseases of childhood which threaten the integrity of its function. To-day the conscientious physician who would do his full duty must carry with him in his pocket forehead-mirror and specula as religiously as he formerly carried stethoscope and hypodermatic syringe. A working knowledge of the protean appearances of the drum membrane in disease and the indications for immediate paracentesis require some measure of experience, but this is imperative and may be acquired by practice. Only those who have systematically examined the ears of a large number of sick children can realize how frequent is aural involvement, and how important and effective is early paracentesis in limiting inflammation, avoiding chronic suppuration, and preventing the more serious accidents from mastoid involvement. More cases of otherwise inexplicable temperature can be traced to the ear than to any other complication, and these cases can be relieved by paracentesis. There is a growing conviction that prompt paracentesis, by relieving congestion, limits the process and is the more conservative procedure as soon as there are reasonable indications of an effusion into the middle ear.

Instances could be multiplied almost indefinitely in which trained observation and prompt interference by the physician may stand between the child and lasting consequences. There is less glory to be attained by patient prophylaxis and early resort to conservative measures than by later successful intervention when the threatened damage is generally apparent; but the meed of honest satisfaction is the greater for the knowledge that dangers have been forestalled and the normal progress of the child secured. Prophylaxis is and ever should be the highest ideal of our profession, and its silent and unheralded victories are worthy to be ranked even higher than the more evident conquests of therapeutics and surgery. Even more on the physician than on the parent lies the responsibility of safeguarding the child. The army of laboratory workers is constantly putting new weapons into our hands. These focus our efforts when disease threatens, and aid in the reduction of mortality, but in our enthusiasm for new modes of diagnosis and treatment, however important, let us bear in mind that the most effective power for human good lies in prevention, and that to conserve a healthy body is a greater achievement than to cure a malady which has resulted, however remotely, from conditions which our timely effort might have averted.

807 Madison avenue.

The Function of the Ventral Group of Nuclei in the Thalamus Opticus of Man.—Winkler, C., and London, D. M., (Proc. Roy. Acad. Sc., Mathematical Physical Class, Amsterdam, 1908) assert that the ventral part of the optic thalamus is concerned in the main with peripheral sensation. There is reported a case in a woman of 77, who had complete loss of sensibility in the right extremities. There were no choreal symptoms and no intensive ataxia of the right side. The sensibility of the head region was scarcely affected; that of the thorax somewhat diminished. There was found in the left thalamus a small cavity with a well localized destruction of circumscribed ventral thalamic nuclei.

OLD AND NEW*

WILLIAM OSLER, M.D.
Regius Professor of Medicine in the University of Oxford
OXFORD, ENGLAND

In the collegiate churches and cathedrals of England, before the sermon the preacher, in what is known as the "bidding prayer," asks the people, often in very quaint phraseology, to pray, among other things, for the estates of the realm, and then he offers a special prayer of thanks for the liberality of founders and benefactors, "men in their generation famous and in ours never to be forgotten." At Oxford in the university church every Sunday in term, it is interesting to hear recalled the memory of Duke Humphrey, Lady Margaret and other worthies. And whoever the preacher may be he finally mentions the founders and famous men of his particular college.

Following this happy custom, I would ask you in the first place to be profoundly thankful to the men of 1799 who gave this faculty to the country and who made this day possible. Out of the speechless years let us recall their good deeds, and I would ask that this occasion be blessed by invoking their memory. Part at least of the success of this faculty may be attributed to the pious care with which their example has been cherished. Long before I knew this city, Dr. Quinan's "History of the Medical Profession of the State of Maryland" was familiar to me; and we have to thank our indefatigable colleague, Dr. Cordell, in whose annals (by far the most complete history of the profession of any state in the union) we can read of the planting of the acorn, of the day of small things in which we had our origin. As Emerson says, "We can not overstate our debt to the past." The plans, the money, the anxious thought, the long hours spent in meetings, the labors of the various committees, represent but the completion of a great work, the foundations of which were laid in other generations. All the same let us be profoundly grateful to the building, finance and arrangement committees, and to our presidents of the past five years—Dr. Brush, Dr. Earle, Dr. Woods, Dr. C. O'Donovan and Dr. Goldsborough—for their extraordinary efforts. I hope that somewhere in this building a brass tablet will permanently record their names.

It would take a long bidding prayer to express the thanks of an academic wanderer like myself, who has had so much given to him in so many places. In deeds rather than in words I have tried to be thankful, but it is hard to find gratitude enough to go round. My heart resembles one of those old manuscripts, the parchment of which has been used over and over again; and, while it looks as if there was only one writing, the expert is able to decipher beneath the palimpsest, as it is called. It is hard on the parchment and it is not always easy to decipher the writing, but the characters traced by my associations in this city must ever remain fresh and clear.

A unique opportunity, indeed, was the founding of the Johns Hopkins Hospital. That those of us entrusted with its organization should have won your esteem and should have been adopted by the city and by the state is by far the best testimonial of our character and of our work. Considering the circumstances, it might easily have been otherwise. But the success of that experiment must not be attributed altogether to the professional side. Such men as Francis T. King, Judge Dobbin, Dr. Carey Thomas and Francis White were equal to the occasion, and we owe much to their wisdom and good management. But to one man more than all others I would like to express my personal thanks—Daniel C. Gilman, whose name will be forever associated with fundamental reforms in American educational methods. And at the Johns Hopkins Hospital we shall always cherish his memory for the work done in connection with its organization, and for his unfailing interest in the work of the medical school. When I heard of his happy death, the words of Elisha rose to my lips: "My father, my father! the chariot of Israel and the horsemen thereof." It is one of my deep regrets to miss on this occasion the greetings of a man whose encouragement and support meant so much in my life here.

I would recall with gratitude the kind reception given to me and to my colleagues by the older men of this faculty, through whose genial influence it was that we were soon made its devoted children. This might, indeed, have been no easy matter had not the way been prepared by a man whose Galenic touch has ever been an "open sesame." Better men than Frank Donaldson, Christopher Johnson, Allan Smith, George Miltenberger, Henry P. C. Wilson, John Van Bibber, John Morris, Aaron Friedenwald, Francis T. Miles and A. B. Arnold never served the state. And there were those of the younger generation with whom the work of the faculty brought me into close contact. Brune, cut off so prematurely, Michel, devoted to its interests, Rohé, so versatile and energetic, Chatard, whose family in this city forms a sort of hereditary Æsculapian guild, Atkinson, type of the ideal physician, George Preston, always faithful and hopeful, and the lovable Ridge Trimble—how glad would they have been to see this day!

The living well know how deeply I appreciate your friendship, of which you have given this new and enduring testimony. It does not often happen that a man is called on to participate in the dedication of a hall to himself. More often it is a posthumous honor for which the thanks are tendered by relatives or friends. It is difficult for me to express the deep gratitude I feel for this singular mark of affection on your part. The distinction is not a little enhanced by the association with corresponding halls in other cities of the names of some of the most distinguished of American physicians—Oliver Wendell Holmes in Boston, David Hosack in New York, and S. Weir Mitchell in Philadelphia.

If by any process from the large lump of your gracious kindness the grains of merit on my part could be extracted they would be found to consist of that all-precious material, faith—the pure gold of faith—which I always had in the future of the faculty. Just twenty years ago I joined this society and began my professional life here by giving the annual oration. Its history and tradition appealed to me strongly and I soon began to find my way to the old quarters under the Historical Society's hall. Dismal, dark and dusty, yet the rooms contained much of interest and there were always a few choice spirits to be found, most often our learned historian, then the librarian, George Preston. Bond, Brune and others. We liked the old place with all its dust and dirt, and it represented much solid effort by better men than ourselves. For years there had been a strongly expressed wish to move to larger quarters, and

* Annual oration on the occasion of the opening of the new building of the Medical and Chirurgical Faculty of Maryland, May 13, 1909.

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with many misgivings and by a not very large majority it was decided in 1895 to buy the house at 847 North Eutaw Street. Our optimistic treasurer, Dr. Ashby, really made us move. Knowing frenzied finance thoroughly and running the faculty on credit, yet he inspired faith in his colleagues who were financial babies in his hands. No one knows how he succeeded in paying for No. 847 and for the hall we there built. We were always hard up, always spending more than our income, and Dr. Ashby had to meet our ever-increasing extravagances, but you all know how well it was done, and how in a few years, somehow, the house and the hall were paid for. With our increasing library it was soon found that we needed skilled assistance, and one extravagance, as some thought, has proved a great blessing. In securing a well-trained librarian, Miss Noyes, to take charge of our books, we did one of the best strokes of business ever done for the faculty, and it appeals to one's sense of the fitness of things that after years of labor in very cramped surroundings she should now have library accommodations equal to the best in the country. How much the success of the meeting is due to the efforts of Miss Noyes and her staff, the members of the various committees can testify.

It is an immense gratification to think that my name will remain permanently associated with this faculty. Among many kind tributes for which I have to thank my friends, none has ever touched me so closely. As a boy some of my happiest recollections, in the early sixties, are of school days in a small Canadian town, where in the summer evenings we paraded the streets, company formation, with a bonnie blue flag bearing a single star and singing "Maryland, My Maryland." Little then—or later—did I dream that my affiliation would be so close with this state, and that with it, through your gracious act to-day, my name may find its most enduring remembrance. These festivals illustrate how quickly the memory of a name perishes. In how many minds did the mention of David Hosack arouse a thrill of remembrance? His works—and they were good ones—have perished, and his most enduring association is with the hall of the Academy of Medicine which bears his name—and this is likely to be my fate. We can imagine a conversation in a library—the year 2009—between two assistants, wearily sorting a pile of second-hand books just sent in.

"What are we to do with all this old rubbish by a man named Osler? He must have had very little to do to spoil so much paper. Where did he live, anyway?"

"Oh, I don't know; Baltimore, I think. Anyhow, they have a hall there that bears his name."

And now that you see fulfilled the desire of your eyes in the possession of this beautiful new building, what is the special message of such an occasion? A double one—to the profession at large and to ourselves in particular. This is the home of the physicians of this state, with all the advantages and associations which we connect with that word. The faculty, as has already been remarked, represents a unique type of organization in this country. State societies exist everywhere, state examining boards are universal, and libraries are multiplying rapidly, but only in this state are the three so combined as to give to the profession its proper solidarity. This means much more than is represented by the Academy of Medicine, New York, the Library Association of Boston and the College of Physicians, Philadelphia, which are local civic institutions. Here the organized profession of the entire state is in control. It is to be hoped that the good example of Maryland may be followed, and that other state medical societies may secure in each capital a building for the accommodation of the examining board, the state society and a library. The leaven of progress and of unity has been working, and the reorganization of the American Medical Association has aroused great activity in the state and county societies. And to the energy and business skill of one man may be attributed much of the phenomenal success of late years of the American Medical Association and its journal, a success of which every member of the profession should be proud.

In part this building may be attributed to the new spirit and we may hope to see before long in Trenton, Richmond, Harrisburg, Albany and other capitals, homes on similar lines. No one can have participated as I did in the work of this society without feeling that it is one of the most potent factors for good in the city and state. The annual and semiannual meetings, benefiting alike hearts and heads, have brought us together in friendly rivalry and have strengthened the bonds of good fellowship. All crave companionship and encouragement, particularly when young, and these gatherings help to counteract the sterilizing influence of that isolation in which so many men have to work. Look about and ask: Who are the happiest men in our ranks? Those who do not neglect the gathering of themselves together at our meetings. Who are the busiest? Those who are the most faithful in the discharge of their duties to the society. Who are the most prosperous? Those who have given to it much of their time and substance. I could enumerate other benefits, but we are fortunate to have this year as our president one of those typical products of the faculty, a man whose family has had affiliation with it since the foundation, and who represents in his character the highest type of physician and the best stamp of citizenship. It is one of the great merits of this society that it holds up to emulation and delights to honor men of this stamp, who have loyally maintained our best traditions while living the exacting lives of general practitioners.

This faculty represents an organic pattern in which the old and the new form the warp and the woof of the life of the profession of this state. Father Time, who plies the shuttle to and fro, has inserted webs of innovation as in 1895 and 1909, but the pattern remains essentially the same. We, the members, pass on—the faculty endures; the lives which make it die, but its life survives. The past has a charm and a use not always evident to ordinary eyes. In the orderly evolution of Nature the old and the new are never dissociated. Of this our bodies offer many illustrations. In the very temple of the mind itself, stowed away in its depths, lies the mysterious pineal gland—the seat of the soul, said the old philosophers; but to him who can read, here, in the presence of the latest and most complicated bit of Nature's mechanism is a remnant of the very old, of a third eye which was of use to an early vertebrate ancestor as he flopped about in the primeval marshes. Why should it be there? Of what use? Why should we be full of these vestiges, useless, often harmful? It is part of the purpose of life ever in this way to blend the old with the new. Habits, customs, opinions, beliefs, influence us out of the past, sometimes helpfully, at others hurtfully. For example, in any medical organization on such an occasion as the present, when a device was needed for the beautiful medal which has been designed by Max Broedel, it was not possible

to use anything else but the Æsculapian serpent, an emblem which speaks to us of a long past, when we took our origin in the most gracious and useful of the Grecian cults. Every prescription we write tells of the days when the Arabian was our master, when Avicenna swayed the profession to a unit. And still more does our every-day language call back theories and opinions which have long since passed into oblivion and are as useless as the pineal gland or the vermiform appendix.

The secret of success in an institution of this kind is to blend the old with the new, the past with the present in due proportion, and it is not difficult if we follow Emerson's counsel. "We can not overstate," he says, "our debt to the past, but the moment has the supreme claim; the sole terms on which the past can become ours are its subordination to the present." Let me indicate very briefly how the old and the new may be interwoven in the life of this faculty.

The written records of the profession of the state will be found on our shelves. Let it be known that collections of letters and of documents of all sorts will here be housed in a fire-proof building, catalogued, bound and indexed, and there will soon be additions of value to the interesting papers already in our possession. The Nathan Smith letters should be here on deposit with the story of that noble man's work at Dartmouth and at Yale. Perhaps it might be more fitting to see them in the library of one or other of those institutions, but for three generations the family has been intimately associated with this faculty and with the life of this state. Let people know that we are not greedy in this matter, but only anxious that such priceless treasures should be on deposit where they are absolutely safe. From these records, the private letters of the old doctors written to their friends, patients and relatives, we get a vivid picture of the past and are enabled to reconstruct their lives and their times. Throughout the state there are scores of documents which it is to be hoped will gradually find their way to our archives. In each generation some one man knows the value of such documents and is willing to collect and classify them. It makes one sad to think what we missed in American medical history when the Toner collection slipped out of our hands, and I am glad to think an accident of that sort could never happen again. A good start has been made and you will see treasures which the care of former librarians has preserved. The first medical diploma issued in America, to Dr. John Archer, a Maryland man, hangs on the wall, and a picture of his old medical hall, a sort of private cross-roads medical school. I would urge on the library committee the importance of fostering this side of its work. Nowadays the arrangements for binding, cataloguing and displaying letters and manuscripts have reached a high grade of perfection, and this fireproof building should attract many important documents relating to the profession.

The library has more than doubled since our removal to 847 North Eutaw Street, and now contains 17,533 volumes and 10,869 monographs and reprints. A great majority of these additions are new, the books having been bought by the Frick fund and by the Book and Journal Club. Nothing neutralizes the new more effectively than the presence of old books. An Aldine here and there, a few fine parchment bound Juntas, an Oporinus or a Froben in the original boards and stamped pigskin, a fine Paris Stephanus, an Elzevir or a Plantin give tone to the shelves, just as do the Stuarts and Copleys to the dining room and in an old mansion. The difficulty is that for library purposes nearly all books are old. Nothing ages so quickly as a book—no life so short. Often still-born from the press, not one in ten thousand has the life of its generation, not one in a hundred thousand lives out the allotted years of its author; one or two in each generation are immortal, having in them that potency of life of which Milton speaks. On what principle, then, should a library of this character select books? For reading purposes a decade will age every book issued from the press this year; that, no doubt, is the hidden meaning of the old proverb about every book having its fate. Under such circumstances, deliberately to buy old books may seem a superfluity of naughtiness on the part of a librarian. There is an immense old literature which it is not worth while to seek. In our large collections, miles, literally miles, of shelves are filled with books as dry as the bones in the catacombs.

Some one library in the country must have all the books, and in the Surgeon-General's library there is a collection which aims at completeness. If you wish to see all the Junta editions of Galen, go there; if you wish to see a pamphlet by John Smith, of New Orleans, on the treatment of yellow fever by the application of sulphur to the soles of the feet, go there; all the odd and out-of-the-way literature may there be consulted, and the student who wishes to know the story of Valentine Greatrakes and of Perkins Tractors has only to go to Washington. We can not be too grateful to the men who have established this great national institution, one of the most successful of modern libraries—to Surgeon-General W. A. Hammond, the founder, to Dr. Billings, the maker, to successive Surgeons-General, the promoters, to Dr. Billings and to Dr. Fletcher for the Index-Catalogue, one of the most important works on bibliography ever undertaken.

To the national library, then, may be left the duty of indiscriminate purchase, on the principle that it should have everything that any one can possibly ask for. The local libraries have a much more limited, but not less interesting field to cultivate. In the first place, all the medical literature of the state should be here—the journals, the reports, the transactions and the editions of all the books written by men who have been connected with the state—by no means an easy task; it takes years of anxious hunting to fill gaps. This work generally falls to the lot of some enthusiast on the library committee. Fortunately, keen eyes for many years looked out for these items, and this part of our collection is on a fair way to completion. Then there is a group of books which may be called American medical classics, the more notable contribution to medicine and surgery made in the eighteenth and nineteenth centuries; Morgan's essay which led to the foundation of the University of Pennsylvania, Jones' "Manual of Military Surgery," Nathan Smith on typhus fever—works of this sort should be on our shelves. Thirdly, the bibliography of the more distinguished American physicians and surgeons should be made as complete as possible. Of the writings of some forty or fifty men every scrap deserves to be sought for—men of the stamp of Nathan and Nathan R. Smith, the Bigelows, Samuel D. Gross, Austin Flint, Henry I. Bowditch, W. A. Gerhard, Daniel Drake and Oliver Wendell Holmes.

And, lastly, a library with any ambition will wish to have the original editions of the great medical books of the world. Care must be exercised not to allow a library to be made the dumping-ground for all the old quartos

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and folios of the seventeenth and eighteenth centuries. There are plenty of very handsome volumes not worthy of shelf-room. This part of the work takes time and money and more of both than are usually at the disposal of the library committee. In every city of this size there is usually a physician with the happy combination of literary tastes, leisure and a long purse, to whom should be entrusted this part of the literary work. With only the taste and the knowledge he can use his colleagues' purses and induce Dr. Blank to give an original Harvey "De Motu Cordis" or a Jenner pamphlet or an early Mundinus. The fine old books on exhibition show that much has been done already in this direction and I have no doubt that within a few years this department will grow rapidly. To mark this happy occasion, and to rejoice Miss Noyes' heart, I could not resist buying in Rome the original edition of Vesalius, 1543—one of the two medical works which has most powerfully influenced modern medicine. Special collections are of exceptional interest and we are fortunate to have the library of Dr. Upton Scott, our first president, the books of Dr. Charles Frick, and a unique group of 120 Edinburgh theses by American students of the colonial and early nineteenth-century days.

With manuscripts and books, pictures are naturally associated and our gallery, old and new, grows rapidly. You remember how the centennial celebration brought out a group of fine portraits and we benefited at that time in getting the Baker, the Buckler, Miltenberger, Wilson, Frick, Arnold, Friedenwald, Archer, Stokes, N. R. Smith, Atkinson, Rohé, Preston and other pictures. There are many others in the state and city whose ultimate destiny should be these walls—if not the original, good copies supplied by the families are very welcome. This is our Pantheon, in which there should be a memorial of some sort to every distinguished old Maryland physician. When we look about and see what has been done since our move to Eutaw Street the faculty may well feel encouraged. One of the most fortunate events of the past fifteen years was the memorial room and library given by Mr. W. F. Frick in memory of his brother Charles, a most distinguished physician of this city and a devoted member of the faculty. To the Frick family we are under a deep debt; not only has the special library been an inestimable boon, as with the money annually given a large proportion of the new books have been bought, but it has been also a happy example followed in the new building and the rooms devoted to the memory of Dr. Aaron Friedenwald and Dr. Samuel Baker. In what happier way could these families have paid for themselves and for us the debt of the past?

But let us not forget that the moment, the now, the present, has, as Emerson says, the supreme claim to which the past must be subordinate. The most important single function of this corporation is educational. This is really a postgraduate college of which the members remain students. I am delighted to see that a room has been provided, through the liberality of Dr. Hugh Young, in which members may do their own laboratory work. This is a feature in the life of the faculty which should develop and be most helpful. It should be the ambition of every young man as soon as possible after registration to join the faculty. Until within the fellowship he can scarcely be called a member of the guild. Take the group which has joined at this meeting, bringing in youth and enthusiasm; year by year they will grow into the life of the faculty and on them time will stamp the slow insensible changes which hall-mark the generations, but which shade so gradually that there is no sharp cleavage, but the seniors and juniors, the new and the old, are blended into one homogeneous body.

By far the most important channel through which the new pours in to mingle with the old is the current literature of all lands with which our shelves groan. An important function of this faculty is to furnish first-hand information from every medical center in the world, and this it does through journals, transactions and reports. A library such as this has to cater to three groups—the laboratory workers, the specialists, the general practitioners; and it has become increasingly difficult to meet their demands. In a city with large laboratories there should be close cooperation, so that expensive journals are not duplicated, and workers should know just where to look for sets of rare proceedings or transactions. In the present congested condition of medical literature, only Washington can hope for completeness, and the laboratory men and specialists must not complain at the large size of the lacunæ on our shelves. It is not so difficult to keep up with the demands of the man in active practice, who wants the current journals, the new editions, the monographs and the systems, and it is on these the main energies of the library must be spent, but it passes the capacity of all but a few great libraries to deal with the perfect avalanche of special literature at the present day. In certain directions the *Index Medicus* is an immense help and meets a pressing demand, but we have reached the stage when every tenth year, or, indeed, every fifth year, stock should be taken by some international cooperative organization which should deal with the large problems of analyzing the data pouring in from every quarter, on every possible subject.

During the next century the new and the old will fight it out in these rooms in keen discussions, just as they have done since the days of Hippocrates. Time and again it will happen that the new will not be true and the true will not be new. The yesterday is forever being brought to trial at the bar of to-day and the verdict is rarely unanimous; often it is wisely a case of judgment deferred. Look over the questions discussed twenty years ago; some are dead—judgment gone by default; some are still pending; a few are settled—or we think they are; many seem antiquated. Turn to the program of the present meeting and we find new problems propounded, sometimes in language which requires interpretation, old problems that the present seems never able to get rid of, and in others we recognize old friends in disguise. How interesting to look back over the faculty attitude toward the subject of tuberculosis, with the modern history with which it is coeval! Brought up in the hazy pretuberculosis days, what did Upton Scott, our first president, think of the young men fresh from Paris, and their demonstrations of Laennec's views? A generation or two later Power and Buckler and Charles Frick were propounding Louis. Then in the seventies the heresies of Niemeyer and Virchow were discussed by Donaldson, Chew, W. T. Howard and others. How the hosts of the past fought against the bacillus when it was announced, and did not prevail, how the public was finally awakened, how tuberculosis was put in the list of preventable and curable diseases—these are questions of recent history. In this quintette of problems bearing on but one disease, which it has taken a century to solve, the new and the old are curiously blended again; they are not in clear-cut strata.

The idea of contagion in tuberculosis goes back to Frascatorius and even earlier, while you will find in Celsus excellent directions for the fresh-air cure combined with a milk diet. To meet the educational side of the faculty the entire organization has been changed and the special sections and the publication of its own journal are important new departures.

Amid these hopeful and splendid surroundings, which can not but influence it profoundly, the old organization enters a new era. Do not forget that it takes some time for the domestic machinery to get into good working order, but the rapidity with which the rooms have been prepared, the books moved and the whole place made comfortable speaks for the great efficiency of the staff.

In one of his Hibbert lectures last year at Oxford, William James made a remark that clung: "We live forward, we understand backward." The philosophers tell us that there is no present, no now—the fleeting moment *was* as we try to catch it. In the opening of this new building we have to-day made a happy addition to a happy past. Toward this day we have all lived forward, and the future should still be in our thoughts. This old faculty must continue to be our rallying ground—once inside its portals, schools, colleges, hospitals, societies, all other affiliations are absorbed in something vastly greater, which includes all and claims from all devoted service, the united profession of the state. The progressive evolution of such an organization demands the loyal support of every member. In all societies differences of opinion are not only inevitable but salutary. From time to time many of you will not approve the policy of the officers of the day—do not let your annoyance dim your loyalty. Professional politics have never been, and I hope may never be, a marked feature of this body, but whenever any of you feel sore at the action of those in charge let me ask you to find a cure in devotion to the scientific work of the sections or to the library.

But the best of all things about this faculty is that subtle force by which the men of the past influence us to-day—not by tradition, by the spoken word, handed on from father to son, teacher to pupil, not by the written record in which one generation reads of the deeds of another, but by that intangible, mysterious force hard to define but best expressed in the words *noblesse oblige*—that obligation to act in a certain way, to foster certain habits, to conform to certain unwritten laws—a sacred obligation, as potent now as in the time of Hippocrates, the alchemy of which at once turns to gold whatever may be leaden in the new of to-day.

Treatment of Burns.—Lejeune of Frankfurt a. M. writes to the *Zeitschrift für aerztliche Fortbildung*, June 1, 1909, to report his method of treating burns. He declares that the burning itself has disinfected the tissues and the exudating fluid is sterile. All that is necessary is to keep it sterile and this he accomplishes by placing the burned part in a position so that the blister forms a spirit level, as it were, with its horizontal surface over the largest area. He then injects into the bulla a little bismuth, leaving the skin intact except where the cannula was inserted. The bismuth soon settles to the bottom of the blister and the fluid contents are then aspirated through the cannula left in place. The blister skin sinks down over the bismuth and the tiny hole is closed with a bit of plaster. The part is then dressed with mull and dry cotton, left for about a week. Burns thus treated heal remarkably fast, often in half the time with other technics, without scars or contraction or even appreciable pigmentation in the burned area.

Original Articles

THE UNRELIABILITY OF THE ASTIGMATIC FAN OR CLOCK DIAL TEST *

DAVID W. STEVENSON, M.D.
RICHMOND, IND.

Nearly all books on refraction give a very large and probably undue amount of space to the astigmatic fan test. There have been a considerable number of later writers who affirm that the astigmatic fan test combined with the fogging method even obviates the necessity for the use of cycloplegics. It is my purpose to prove that the test is very unreliable in a large percentage of cases, and that only by accident is it ever accurate.

It is possible to have the lines appear unlike when the patient has no regular astigmatism. Moreover, it is often true that the lines may look alike in the principal meridians, and yet the patient and victim may still have remaining some astigmatism that ought to have been corrected. Considerable fault may be found with the test, for the additional reason that the average patient, from inexperience and lack of concentration, does not know what is expected of him in the test. Experience has demonstrated these points:

1. If there are three lines, the patient may decide by the middle line, or he may notice only the outside lines. If the lines are partly doubled he may fail to refer to the fact. Blackness is often confused with distinctness.

2. The patient often answers according to a view affecting a peripheral part of the lines and not that covering the macular region.

3. Often adjacent lines are the lightest and darkest; thus 60 may be the lightest and 90 the darkest, while the patient only mentions the most distinct.

While all will admit that it is easy for the average patient to misunderstand the fan test even if it be founded on correct principles, yet in our further argument we will assume that answers are always given with scientific accuracy. Our contention is that even under conditions so favorable, the fan test is unreliable. As an example, if such a patient with relaxed accommodation requires a correction of plus 2.00 D. sphere, combined with a plus 1.00 D. cylinder, axis 90, it will be true that if a plus 3.25 sphere is put before the eye, both meridians will be myopic; the diffusion image might in such a case resemble a vertical line, and the vertical line on the clock dial will be the most distinct. If a plus 3.00 is used, the assertion will be made that the diffusion image becomes an exact vertical line, but incidentally it may be stated that in the human eye the diffusion image never resembles a geometric figure. With a plus 2.75 the vertical lines will still be the most distinct, while with a plus 2.50 it is stated that it will give an exact circular diffusion circle and thus all the lines on the dial will look equally distinct. Practically such a condition never occurs, as the diffusion image in the best eyes never becomes an exact circle.

With all lenses weaker than plus 2.50 it will be claimed that the diffusion image becomes horizontal and that these lines in the fan become correspondingly most distinct.

One clock dial enthusiast has asserted that in lowering the lenses from plus 3.00 gradually to plus 2.00, the vertical lines, 90 first, become distinct, next the 60

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

and 120 become the clearest, and later, in order, 30 and 150, and last the horizontal. This is a very gross error because the diffusion image never assumes the shape of a geometric cross with flexible angles merely by a change in spherical lenses. If such erroneous ideas can be believed, no wonder a few optical, correspondence and postgraduate schools assert that refraction can be learned in a few weeks, and that cycloplegics are unnecessary.

If the cornea is divided into two halves, either horizontally or vertically, generally it will be found that the center of the diffusion image of each part never corresponds exactly with the center of the other part. In the same way the cornea may be divided into quadrants, or into as many sectors as desired; yet it never can be supposed that the center of the image for each sector lies exactly at the same place as the others.

The serious mistake made by all fogging clock dial enthusiasts lies in supposing that the center of the diffusion image for each sector lies exactly on the theoretic optic axis of the eye. As an illustration, take the case of an eye which can not be improved either by a spherical or cylinder lens, yet in which the upper part of the cornea creates a diffusion image which slightly overlaps that of the lower part (Fig. 1). This overlapping may be compared to that of binary stars which through telescopes are seen to overlap slightly. It sometimes takes years of observation by astronomers to note if the stars revolve before it can be decided whether or not they are double stars.

With such an overlapping diffusion image vertically placed it may be stated that if the refraction is fogged by placing on plus spheres the vertical lines will yet remain the most distinct. If the attempt is made to force the diffusion image into a rectangular or circular outline by plus cylinders placed vertically, the result will be only disaster because the horizontal part of the image will only be diffused and not rendered more distinct. Minus cylinders would have the same effect if both meridians were fogged. Thus the great evil of the fogging system is in failing to give clear and condensed diffusion images, while merely permitting cylinder-diffused images with a somewhat more circular or symmetrical outline.

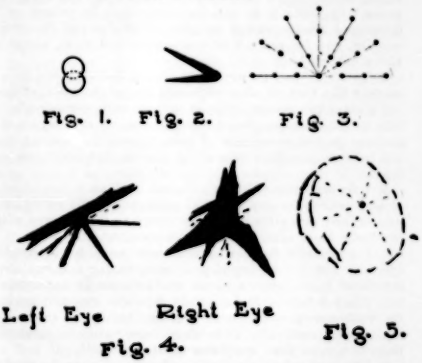
Even if millions of eyes were corrected with the best possible spherical and cylinder lenses, the resulting diffusion images would have every possible fantastic shape. No two of these would be alike. Take as an illustration a resulting diffusion image, similar to Figure 2, having an angle with one arm placed at an angle of 30 degrees to the horizontal. In such a case the horizontal clock dial lines and those at 30 always ought to be the most distinct when fogged. If the fan is made up of a series of dots, as in Figure 3, it is easy to see what the result would be by placing Figure 2 over each dot.

Figure 4 shows a drawing made up of the diffusion images of each of my eyes, made while looking at a round electric light seen a mile distant at night time. The vision of each of my eyes is more than double the normal, equal 20/10.

In the study of the refraction of an elderly woman's eyes it was found that she could see fairly well with almost every glass in the trial case. I then asked my assistant to put every sphere in the trial case before her, starting with the strongest plus down, and noting the vision with each. I then had the results platted to scale on quadrille ruled paper, the horizontal lines showing the vision and the vertical lines the strength of the lenses. It was perceived that there were two peaks of best vision several diopters apart, showing a rough test for astigmatism.

I then had the patient make a drawing of the diffusion image of a very small gas jet. It was shaped somewhat like a cartwheel, with a very small central hub (Fig. 5). With the retinoscope and further use of the trial lenses it could now be perceived that there was only a very small central part of the cornea to which attention need be given, and that it acted in her case like a pin-hole disc, and, furthermore, that while the peripheral parts were very astigmatic, they interfered but slightly with the vision. Obviously such a case would merely be muddled with the fan test.

It is impossible to find in the United States or in the world a human eye which does not have irregular astigmatism, while there are many that have no regular astigmatism which can be benefited by a cylinder. Some of the ancients drew their star-shaped figures as having five points, and some six, and others more or less. Irregular astigmatism always tends to render the fan test unreliable and worthless.



Figs. 1-5.—Various forms of diffusion images.

The essentials required in careful subjective refraction are a complete trial case including cross cylinders and test letters. The test with these ought to be made in difficult cases with varying illumination and at varying distances. A weak illumination at a short distance may reduce the obscuration by irregular astigmatism, so that the patient may definitely decide what glass gives the most distinct vision. Furthermore, this may require the faithful use of a reliable cycloplegic, combined with further tests made with enlarged pin-hole discs of two, three and four millimeters diameter. If the patient is told to look exactly through the center of these openings, the shadow of these discs will lie concentric with the macula and therefore practically concentric with the pupil.

As the eye is composed of flexible structures, the best results will follow from the study of a wide average, testing the vision with one eye alone and then with both open, alternating with both fogged and later with one at the most distinct focus. It is also well if the tests can be made both before and after the use of a cycloplegic. In many cases these tests require infinite patience and much time and repeated trials, even by an oculist who may have made a prolonged study of every law of theoretical optics.

In visiting my brother, Mark D. Stevenson, at Akron, Ohio, a short time ago, I noted that his office was without a fan test chart. It is true that many well-equipped oculists' offices will be found in which all clock dials, from Green's many varieties to Verhoeff's finer lines, all may have been sensibly consigned to the waste-basket.

In a recent article[1] by D. B. St. John Roosa, some ideas are expressed which might have appeared correct in the middle of the nineteenth century, but which are not consistent with the scientific progress of the twentieth. Following are a few quotations from the article to which exception may well be taken:

1. I present what I conceive to be safe and sane views on this subject. These views I also believe in the main are those of the majority of ophthalmologists.

2. The field of abnormal refraction is actually not entered as far as hypermetropia of a low degree is concerned. It is not reached unless it is of a degree higher than, for instance, two diopters, or unless corneal astigmatism is added to it.

3. I deny the existence of muscular asthenopia, except as dependent on errors of refraction, standing by my views expressed in 1890; I do not find any value in prisms or in decentered glasses, except in cases of paralysis of the ocular muscles, and for years I have not prescribed them, except as above indicated.

4. To see as well as one can is always desirable, and I have no fear like that so often expressed among the laity, of having glasses too strong either in myopia or hypermetropia, so long as those chosen give the best vision. If they secure this and the patient complains of pain, it may be assumed that the pain is not from the wrong glasses, but from the eye itself.

5. I do not believe that a difference such as a quarter of a diopter will make any essential difference in the vision of a patient, and especially not in his ability to use his eyes without headache or other asthenopic symptoms.

6. Unprejudiced judicial examinations made by thoroughly educated and widely experienced men, in my opinion, show the belief that eyestrain causes neurasthenia to be incorrect.

7. What I believe to be almost infallible evidence against the existence of eyestrain in a given case is the absence of ocular symptoms. . . . In short, before there is eyestrain, there is always some symptoms in the eye itself.

8. Migraine and neurasthenia will soon cease to be treated through the muscles or refraction of the eye.

9. Largely counseled by the late Dr. E. G. Loring, I had abandoned retinoscopy as the most difficult and least satisfactory of the methods of determining the refraction of an eye, which contributes nothing that can not be more easily and more expeditiously performed by the upright image.

10. Fortunately the use of the ophthalmometer is easily learned. With a good teacher, in two weeks' daily practice, a man at all skilled by education and experience in other manipulations and observations will be able to go by himself.

As to the second quotation, it may be stated that of all glasses ever given, probably more benefit has resulted from a hyperopia corrected of less than 2.00 D. than of any spherical type. In numberless cases patients of this class have truthfully told their oculists that if their glasses could not be replaced, no money could buy their present ones, as life would be considered unendurable without them.

As to the third statement, it is within the bounds of absolute truth to say that in such conditions as hyperphoria and allied conditions prisms have been of untold value.

Neurasthenia may have many causes, from fatigue to autointoxication, but eyestrain is undoubtedly one of its most prolific causes in this age of overworked vision. As to the severe migraines, such as have a distinct heredity and compel the patient to go to bed, a considerable proportion are not relieved by glasses; yet there remains a large percentage of migraines which have been entirely cured by careful refractive work.

As to the comparison between the objective methods of testing, such as the ophthalmometer, the retinoscope and the direct method, it can be truthfully said that the retinoscope is better than either of the others, as its measurements can be taken from the macular region.

The axis of astigmatism is seldom definitely shown with the direct method and is always uncertain. The ophthalmometer shows only the anterior part of the cornea and therefore it is totally incomplete because it fails to give the lenticular astigmatism, while that of the aqueous, vitreous and posterior layer of the cornea are neglected. The statement that the ophthalmometer takes the place of cycloplegics is not worthy of the least consideration and ought not to pass unchallenged.

Almost every ophthalmologist of fifteen years' active study and practice will affirm that during the last years of his practice his refractive results have improved marvelously, while his former tests were something to be surprised at and possibly ashamed of. In no branch of his study and life-work has more real gain been made by experience and constant education than in his personal refractive training. Refraction is the work of a lifetime and a study that is never completed.

1. The Proper Method of Determining Errors of Refraction and Their Actual Relation to the Ailments of the Human Body, THE JOURNAL A. M. A., Feb. 13, 1909, p. 543.

ABSTRACT OF DISCUSSION

DR. J. THORINGTON, Philadelphia: Of course most of us prefer to estimate astigmatism with the retinoscope, but when we can not use cycloplegics we must resort to other methods; for instance, the astigmatic clock dial. In the selection of the clock dial it has always appeared to me that the two chief and common meridians are 90 and 180. Dr. Risley and I presented a paper on this subject a few years ago showing that 58 per cent. of the patients selected a plus cylinder, axis 90, or a minus cylinder, 180, or the same if taken against the rule. Therefore, the charts that have the lines running from 9 to 3 and 12 to 6 should have these lines cross at the center of dial. Then properly instructing the patient to fix his vision at the crossing and not allow him to cast his eye indiscriminately at various lines I am careful then to give the patient an opportunity to make exact statements that will guide me in the selection of the axis and frequently give an idea as to the strength of cylinder in given cases. I feel therefore that the astigmatic chart on which the lines do not cross as just suggested is not the unique astigmatic chart of to-day. Now we are delighted that the refracting opticians resort to the astigmatic clock dial because they draw the attention of the public to the fact that the lines do not appear equally black. They make a strenuous effort to correct that condition with the result that the patient frequently goes away dissatisfied, fearing he is wearing the wrong glasses. When he reports to the oculist the latter finds his suspicion correct and is correspondingly delighted—the one good thing about a refracting optician. You know we do not find very many.

In a few cases we have to resort to some subjective way of finding out about astigmatism. In such cases we test first with the astigmatic chart and then at subsequent visits follow with other methods. As Dr. Stevenson says, we omit to present the astigmatic chart at the final visit, but we convince the patient that his correction is what it should be. I therefore do not feel that the chart should be relegated to the waste basket, though my preference would be retinoscopy. As the refracting optician is partial to the chart, however, I think it is wise for each one of us to have a chart of some one of the numerous varieties to hang in the office to convince the patient that we are acquainted with it and know how to use it, while we feel there are other methods superior to the astigmatic chart.

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In the main I agree with Dr. Stevenson, particularly that there are times when certain lines and certain areas or spots are darker, whatever the test may be. But that brings out this fact: For a long time it was taught that astigmatism was corneal only. Now we know by careful statistics and study that one patient in four has some lenticular astigmatism. This we can bring out with the chart. But we have other ways of bringing it out, and it is not necessarily corneal. We see with the ophthalmometer that there is no astigmatism on the anterior surface of the cornea and therefore we must consider it as lenticular, and it is by the use of the astigmatic chart, the opnthalmometer and the other means that we are able to state whether it is corneal or lenticular astigmatism. In my experience it is mostly the patients with lenticular astigmatism who give the erroneous answers referred to by Dr. Stevenson.

DR. F. W. VERHOEFF, Boston: Dr. Stevenson's highly theoretical objections to astigmatic charts, it seems to me, are based on a fundamental error. He has made deductions from the study of the complicated and intense diffusion image of a very bright source of light. I called attention to this error nine years ago in a paper on monocular diplopia. In fact, strictly speaking, Dr. Stevenson apparently did not study diffusion images at all, since we are to infer from his paper that his eye was accommodated for the source of light. The diffusion images that actually come into play in the tests with astigmatic charts may be studied by observing a small black spot on a white piece of paper, different degrees of blurring being obtained by varying the accommodation or by means of test lenses. The spot should not be too minute, otherwise misleading information will also be given here. The various monochromatic aberrations of the eye undoubtely affect the appearance of the lines in astigmatic charts, often materially, but not to the extent that Dr. Stevenson would have us believe. Dr. Stevenson seems to overlook the fact that these aberrations also affect the appearances of the test letters, rendering some relatively more distinct, others less so. This explains one of the important difficulties in determining astigmatism by reference to test letters alone. My experiments as well as my clinical experience have convinced me that astigmatic charts are distinctly superior to test letters in the determination of astigmatism. When properly used the important aberrations of the eye may be recognized and allowed for. From a psychologic standpoint astigmatic charts are superior, since direct camparisons of very simple impressions are made, whereas with the test letters a present complex impression is compared with the memory of a past one. Astigmatic charts also save much time and are less fatiguing to the patient. After determining the amount of astigmatism by their use an attempt may of course be made to improve on the result by the test letters, but as a matter of fact I am never able to do so. I can not agree with Dr. Stevenson that the text-books on refraction give an undue amount of space to astigmatic charts. On the contrary, I have yet to see a text-book in which the test with astigmatic charts is adequately described. By the manner in which he refers to them I judge that Dr. Stevenson does not understand the principle on which my charts are based, although I am sure tnat I explained it clearly enough in my original description.

DR. J. W. PARK, Harrisburg, Pa.: I have for the last ten years at least discarded the chart because there are so many unreliable replies. I have found that the retinoscope is the most reliable, and I think every man should practice to become expert in its use. I use the shadow test in all cases even of presbyopia, with a very small mirror and a very small opening in the mirror, not over 6 or 7 mm. and in presbyopes there are a number of small pupils in which you can get a small shadow. But by doing a great deal of that you can determine your axis when the pupil is dilated. There is no great trouble to get the axis of astigmatism, by putting the patient in the chair and putting cylinders on first and then putting on the test lenses; nine times out of ten you will have the axis right, and then it is a question of straightening the cylinder. I make that a particular point, for there are so many who can not judge between the shades of the lines and I think that the retinoscope is the thing to decide that.

DR. OSCAR WILKINSON, Washington, D. C.: In my opinion, the use of the retinoscope even without cycloplegia is much easier than the average man appreciates, and in cases in which I do not wish to use cycloplegia I find that the use of a drop of cocain in the eye will often give us a sufficiently large pupil to do a good retinoscopy in cases otherwise troublesome. In my experience the clock dial or astigmatic fan is the least accurate of all our tests. I have found corneal astigmatism with the ophthalmometer relatively more correct in a larger percentage of cases than is found in the statistics of others. In fact, I think that we are too careless in the use of the ophthalmometer. I have been in the offices of several of my friends who do not appreciate and do not use it, and found the ophthalmometer sitting out in the open room, and they have tried to use daylight, or the electric light in front of the window. I put mine in a dark room and give it an opportunity to show results, and I get results with it.

DR. LEARTUS CONNOR, Detroit: I do not know of any one instrument or process on which we all agree—a fact quite within the limit of what we should expect, as we are unlike both in our methods and habits. In regard to astigmatism tests, taken in connection with the other tests mentioned, I would not dispense with the chart. If I had to depend on it alone to determine astigmatism I should be at fault, as with any other one test. But as to each case I apply every known method to determine the irregularity of cornea and the lens, my results are satisfactory. So my belief is that we shall get the most satisfactory results only when to every case we carefully apply every test. In the case of my own eyes, which are astigmatic, it has been many years since I found any variation from the lines on the chart. They are perfect, and I expect in every intelligent patient to leave a like condition.

DR. EDWARD JACKSON, Denver: My story of the clock dial test perhaps is best expressed by the fact that I do not use them habitually, or do not use them at all, and have not used them since I was busy enough to confine myself to what I believe to be the best tests. The inaccuracies depend very largely—not entirely and not in all cases, but in many cases—on the size of the pupil. With a small pupil they do not exist, or exist only in slight degree. With a pupil dilated by a mydriatic they are serious in almost all eyes; so that the optician without the mydriatic is perhaps at a little advantage over the ophthalmologist who uses the mydriatic. A mydriatic, however, is not necessary to induce the inaccuracies. Most opticians' test rooms and most ophthalmologists' offices are sufficiently dark to get a considerable dilatation of the pupil, so that these inaccuracies are induced, and as a matter of fact if you care to subject the patient to the final test with the psychologic risks that have been referred to, you will find that very few, like Dr. Connor, see the lines equally clearly in all directions. After the best correction there may be astigmatism that will cause them to say one eye is better and the other worse. Getting them all clear is an impossible ideal, unless the patient be so sluggish that he does not notice slight differences.

DR. JOHN GREEN, JR., St. Louis: Especially in the estimation of a dynamic refraction, I regard some form of clock dial as indispensable, and I greatly prefer the astigmatic charts of Dr. Verhoeff. I have been using these charts for four years and I find that, carefully and patiently used, they give results which approach surprisingly near the results we get under cycloplegia. It is necessary to take a good deal of time and to make sure the patient understands what he is to look for. Some years ago Dr. Spratt of Minneapolis made a series of tests with Dr. Verhoeff's charts both without and with cycloplegia and found that the difference in the two results was surprisingly little.

DR. WENDELL REBER, Philadelphia: I was delighted to find myself in Dr. Jackson's class. I practically use the chart not at all, and what Dr. Jackson said about the size of the pupil is the strongest argument against it. It is my humble opinion that the time spent in educating the patient to understand the game of using the chart if spent on other methods would bring better results.

DR. D. W. STEVENSON, Richmond, Ind.: I expected more criticism on advocating that an old plan be done away with. I suppose that there are doctors who are still using sarsa-

parilla in their mixtures. I have studied this test for years, under such authorities as Dr. Gardiner and Dr. Hotz of Chicago. Hotz's astigmometer was the best instrument ever devised in studying small weak points of light, although the fan test is still unsatisfactory by any method in which the dial is used. The optician, of course, uses fogging methods. Some oculists do not use the fogging method; but if they will wait, time will prove that the fan test is unsatisfactory either with or without fogging. If the pupils are very small, the lines in the fan test will look alike, no matter how it is used in many cases, even those in which there is astigmatism. That ought to be clear, and that is the only hope for any oculist laboring with such a crude test; for after using the drops when the patient comes back he does not see the irregularities that would be there if his accommodation was relaxed. I believe that the fan test will certainly some day be entirely eliminated from all modern ophthalmologists' offices.

DROPSY OF THE OPTIC NERVE SHEATH *

JOHN A. TENNEY, M.D.
BOSTON

Much has been written concerning optic neuritis since von Graefe supposed it to be caused by obstruction in the cavernous sinus, caused by intracranial pressure. The discovery of anastomoses between the ophthalmic and facial veins made that theory untenable. Schmidt-Rimpler and Manz held that the outflow of the venous blood was impeded by pressure on the optic nerve caused by dropsy in its sheath, and as a consequence stagnation of lymph in the papilla. Leber and Deutschmann believe that the neuritis is caused not so much by the pressure as by the toxic quality of the cerebrospinal fluid, which is loaded with the products of tissue change. These theories depend on pressure as the prime factor.

On the other hand, Gowers,[1] Brailey,[2] Edmunds,[3] Mackenzie[4] and others believe that the disease is not due to pressure at all, but to a descending inflammation transmitted from the intracranial cavity. Those who support the mechanical-pressure hypothesis think that it is an ascending process, while those who hold the opposite view think that it is a descending neuritis.

Leber[5] records a case of a patient hydrocephalic from birth, liable to frequent and severe headaches, occasional epileptic attacks and marked loss of sight. At twenty an almost continual dropping of water from the nostril came on, and with it came great relief from the vertigo and epilepsy. The liquid was found to be identical with the cerebrospinal fluid. Similar cases had been reported before by Nettleship,[6] Priestley Smith, Elliotson,[7] Baxter,[8] Paget[9] and Jones,[10] the patient of the latter observer being sixty-seven years old. In all these cases the head symptoms were aggravated when the dropping ceased. Autopsies were held in the cases of Paget and Jones, but no intracranial disease was found.

Leber thought that the cerebrospinal fluid must have passed through a minute opening in the ethmoid bone; but, as there is a normal passage between the third ventricle and the subarachnoid space, it is more probable that the fluid followed the sheath of the olfactory nerve. Schwalbe many years ago found a communication between the subarachnoid space and the intravaginal sheath of the optic nerve, and it has been demonstrated in recent years that liquids can be forced through these passages artificially. Levinsohn[11] injected cinnabar into the subarachnoid space in rabbits and cats, and later found this substance in the intravaginal spaces of the nerve and along its blood vessels. Kruedener[12] demonstrated in five cases that optic neuritis disappeared after the trephining process, and Abadie[13] reports a patient cured by lumbar puncture.

CASE 1.—Six years ago a young woman with light hair and fair skin came to me with double optic neuritis. The vision in the right eye was 3/60, while the other eye could only tell where the windows were in the room. She said she had been troubled with this loss of sight for a year. She had consulted noted specialists in New York and Boston, all of whom told her she would never see again. She vomited every day, often fell down while walking on the street, and had terrible headaches. The length of time that had elapsed since the beginning of the trouble seemed to exclude cerebral tumor, or it must have been of slow growth, it seemed to me. Instead of getting discouraged over the case as others had done, I resolved to act on the assumption that possibly intracranial pressure had produced this state of things. Accordingly, I prescribed potassium iodid in saturated solution, beginning with ten drops three times a day, and increasing by five drops each day. When the patient was taking fifty drops three times a day the characteristic eruption covered her body. The dose was reduced to twenty drops, and arsenic was given to relieve the eruption. In six months she could see 20/20 with either eye.

The treatment in this case was suggested by my experience with a number of patients who came with loss of vision, on whose cases no history would throw any light and no ophthalmoscopic appearances came to my aid. It is in the interest of such patients that this paper is written.

CASE 2.—The first of my patients was a schoolgirl of 15, sent by a physician in Plymouth county, fifteen years ago. She said that she had lost the vision of the right eye, and was positive that she had not accidentally discovered blindness that she had had from birth. The ophthalmoscope revealed nothing. The retinal veins looked as well as they do in most cases. On the assumption that pressure on the optic nerve might be the cause of the trouble, potassium iodid was prescribed in moderate doses. In a week the patient could see as well as ever.

CASE 3.—In a year or so a girl of the same age came from Maine with the same trouble in the right eye. She said she became blind in that eye the first of May. As it was then the middle of June, there seemed to be little improvement. She was given the iodid, and in ten days she went home. A year afterward she came with the vision more seriously impaired than it had been before. When she looked at a lamp in a dark room she saw a light mist. She said that she had taken the medicine she had before, without effect. The dose was increased; in ten days she went home, and has not been heard from since; the inference is that she has had no more trouble.

In neither of these cases was there any evidence of menstrual or other constitutional disturbance.

Since that time I have seen eight similar cases. I have never used pilocarpin, thinking that the iodid might, with its alterative action, better prevent the return of the disease. In all these cases, marked with sudden loss of vision, with or without headache, in which the ophthalmoscope revealed no changes in the retina, and in which no history threw any light on the trouble, perfect recovery took place.

2 Commonwealth Avenue.

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

1. Diseases of the Brain.
2. Tr. Internat. Med. Cong., 1881, iii, 63.
3. Tr. Ophth. Soc. U. Kingdom, i, 112.
4. Brain, ii, 257.
5. Arch. f. Ophth., xxiv, 273.
6. Ophth. Rev., January, 1883.
7. Med. Times and Gaz., Sept. 19, 1857.
8. Brain, January, 1882.
9. Tr. Clin. Soc. London, 1878, xii, 43.
10. Ophth. Rev., vii, 97.
11. Arch. f. Ophth. (Graefe's), lxiv, 3.
12. Arch. f. Ophth. (Graefe's), lxv, 1.
13. Clin. Ophth., April 10, 1903.

ABSTRACT OF DISCUSSION

DR. L. WEBSTER FOX, Philadelphia: We who have been recently investigating various cases of optic neuritis have seen this accumulation of fluid around the nerve-tracts and sheaths which produces what Dr. Tenney has pronounced sdema of the optic nerve and sheath. I have been following Drs. Potts and Weisenberg at the Medico-Chirurgical Hospital. There we have operated on fourteen patients by decompression operations and it has been marvelous to see the results in the nerve-heads. One of the most interesting cases was that of a boiler-worker from Baldwin's who received an injury to the eye, which was enucleated. A short time after he came in and we found he had an optic neuritis. He described it as a temporary blindness; that is, when he bent down he could relieve this blindness. It was a rather interesting thing and I had Dr. MacFarland and Dr. Weisenberg interest themselves in the young man's condition. This temporary blindness became worse and worse, and ultimately I insisted on the patient's coming into the hospital waiting-room. He died suddenly and we obtained an autopsy. Between the third and fourth ventricles there was a small tumor, pedunculated, not larger than an almond. It seemed he could throw it by changing the position of his head and open the space and allow the escape of the fluid accumulated in the third ventricle and his vision would become restored temporarily. According to Professor McFarland he died of paralysis of the brain from overdistention. I think that I have never in my whole career seen anything that so well exemplified dropsy. The head of the nerve showed optic neuritis, not as pronounced as we frequently see it in tumor of the brain. It was not solid—the choked disc of the Germans. The microscopic examination revealed interesting conditions. There was a dilated space between the nerve trunk and the nerve-sheath probably four or five times the diameter usually found in these cases. Dr. McFarland has made an examination of the cases and somewhere in his writings he has quoted it. In any cases such as I have described you can look for death.

DR. A. R. BAKER, Cleveland: Early in my practice as an ophthalmologist I became thoroughly convinced that choked disc, such as we have in brain tumor, was an edema, and among my earliest operations were efforts to remove this pressure by tapping the nerve-sheath. My first operation consisted in simply incising with a cataract knife. I then devised a long curved pointed syringe with the idea of drawing off the fluid. It can be done, and sometimes you will get temporary relief, but the sheath will soon fill up again and the blindness will return. The second operation I always found more difficult than the first, so it was not long until I abandoned it. Then some time later when lumbar puncture became the fashion I thought that at last we had some way of reducing this pressure, and in nearly all my cases I advised this procedure. It too gave temporary relief in many cases, but every now and then a patient would die suddenly, and we gradually abandoned that. So that it has been my practice for many years to trephine. I do not know who devised or named this "the decompression operation." We simply called it trephining to relieve pressure, and I think for twenty years I have been advising it for the relief of pressure, headache and blindness, vomiting, vertigo, and for the purpose of making the patient more comfortable. Until recently I thought every one had been doing that, and I can not but believe that there are many here who have been doing the same thing. When the brilliant work of Horsley came to our notice we began to look for tumors, and I fear, often did more harm than good as only about three or four tumors out of a hundred can be found and removed. But the simple operation of relieving pressure is one that should appeal to all of us as it has in the past.

DR. J. A. TENNEY, Boston: I have always tried everything else before I operated. When I was younger I operated a great deal more than I do now. Fortunately, in these cases I have described, in which there was actually no apparent edema in the nerve-head and we could see nothing with the ophthalmoscope, I found in every case I was able to relieve the patient by mild means, and so it was very satisfactory.

SCISSORS-MAGNET EXTRACTION OF IRON FROM EYEBALL*

[EDITOR'S NOTE: The article with the above title, by Dr. Edward Jackson, Denver, appeared in THE JOURNAL, June 19, before the discussion thereon had been submitted to the speakers for correction. The discussion was therefore omitted at that time and is now presented below.]

ABSTRACT OF DISCUSSION

DR. W. M. SWEET, Philadelphia: Many cases of injury from bodies are not seen by the oculist until weeks or months after the injury; then it is often impossible to remove the steel, owing to the firm fibrous exudation about it; or even if the foreign body is removed, the disastrous effect of the tugging on the uveal structures can not be estimated. It is probable that a large proportion of the cases in which the steel was successfully removed but enucleation was later required on account of iridocyclitis are traceable to the injury caused by the pull of the magnet on the structures binding the foreign body in its imbedded position.

As I showed in a recent paper, bodies in the vitreous chamber in the neighborhood of the equator or near the ciliary body usually drop into this situation after penetrating the anterior segment of the eye, and therefore do not become imbedded in exudation; and extraction is often successful. In one instance a splinter of steel that had penetrated through the upper limbus was localized at the bottom of the vitreous chamber near the equator, and the steel was removed by the magnet through a scleral incision at the first attempt, after the body had remained in the eye for twenty-one years.

In bodies that are imbedded in the retina and chorioid a week may be sufficient for the formation of an exudation about the metal that will resist the power of any magnet to extract it. If the metal is of large size the magnet may pull it loose, but in small particles; the attempts to remove the metal are futile and the eye is lost. Even a large piece of steel may become firmly bound with lymph in a short time. I have seen a case in which a piece of metal 8 by 7 mm. was localized in the retina and chorioid above and to the nasal side of the disc, and which in one week's time was so surrounded by fibrous material that even the giant magnet could not remove it. Sections of the globe after enucleation proved that the body was imbedded in retina and chorioid alone, and had not penetrated into the sclera, as was suspected when the magnet failed to dislodge it. Since these old injuries must receive treatment, any method that will succeed in removing the steel and save the globe, even though useful vision is not secured, is a distinct gain. I was so impressed with the value of the method suggested by Dr. Jackson of securing these imbedded foreign bodies that I have asked an instrument maker to construct a scissors attachment for the 110-volt hand magnet that I use. I believe that we should have the scissors firmly attached to the magnet, as the loose scissors if not in close contact with the magnet are apt to be jerked out of the wound when the current is turned on, as happened in one instance reported by Dr. Jackson. In this scissors attachment the base of the ordinary tip is hollowed out to receive the rounded end of one scissors blade, the circular portion forming a ball-and-socket joint that permits the blade to be moved in any position. The other blade is jointed with the first, with the joint at some distance from the scissors points, so that there will be only a small amount of separation of the blades in the interior of the globe.

DR. W. B. MARPLE, New York: I was glad to hear Dr. Sweet mention this little device of his, because I was going to ask Dr. Jackson if he had not difficulty in controlling the scissors. I understand that he does not turn the current on until the scissors are in the eye. It occurred to me just as Dr. Sweet suggests that there might be a good deal of risk. I know how careful one has to be. Our Hirschberg magnet is so arranged that it can be raised and swung around into

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

any position without difficulty. In one case I carelessly forgot that the table was iron and wondered what was pulling the magnet so when the current was turned on, when it occurred to me it was the iron table. We shifted the patient to a glass-topped table and had no further difficulty. I recall the difficulty of removing some of these bodies even when the magnet is in contact with them. I remember a case some years ago in which the patient had carried the foreign body fourteen years. Dr. Sweet localized it. It was almost against the sclera under the attachment of the inferior rectus. I made an incision of 4 mm. right over the body and tried the Hirschberg magnet, which failed. Then I made a transverse incision with the scissors and again the Hirschberg magnet failed, although one could be quite positive that the tip of the magnet was almost in contact with the foreign body. I had again to lengthen the incisions and then with the tip of the magnet in the opening the foreign body came away with a part of the sac in which it was encapsulated. The traumatism was considerable, and I advised the patient then to have the eye removed because it looked so bad when I was through. He insisted, however, on keeping the eye and has it still, although I thought he was going to have sympathetic ophthalmia. I think if some device like Dr. Jackson's had been used the traumatism would have been much less.

Dr. H. Gifford, Omaha: I think we ought to pay more attention in connection with this idea to the inner-pole magnet. This magnet, as you know, has received little attention in English-speaking countries. The magnet is simply a large series of coils of wire making a large and powerful solenoid. In the center of the coil the head of the patient is placed, the current is turned on and the foreign body, as well as the instrument used inside the ring, is magnetized. I can testify after having used this instrument for several years to the extreme neatness with which we can manipulate a small instrument in the center of this solenoid. You can with the utmost ease go into the vitreous, put the instrument just where you please and if the foreign body is not too firmly attached withdraw it. Some of these points are not any bigger than a discission knife. It seems to me if the scissors were used in connection with the inner-pole magnet we would have nearly an ideal arrangement.

Dr. W. H. Wilder, Chicago: In regard to the scissors suggested by Dr. Sweet, it seems to me that one blade might be made of steel and the other of a non-magnetic material, which might prevent them from closing suddenly when it is not so desired; and the magnetic blade would seize the foreign body just as readily. In this connection I wish to mention a procedure for removing the foreign body after it has been drawn into the anterior chamber with the large magnet, which in a number of cases has proved useful in my experience. It consists in introducing into the anterior chamber the points of a fine iris forceps, or better, the small dressing forceps such as are used in cleansing a cataract wound, and then bringing them into contact with the foreign body. An assistant then brings the magnet into contact with the forceps and a gentle current is turned on. The foreign body is more generally removed in this way and there is less likelihood of the iris being dragged into the corneal wound than when the tip of the magnet is placed in or near the incision. Such a procedure will often be of use, especially when one is not provided with a small hand magnet and a variety of delicate tips.

Dr. E. E. Holt, Portland, Me.: It certainly should be our practice to operate at once in cases of steel in the eye. I remember my first series of cases of this kind reported in the American Ophthalmological Society twenty years ago. It was not the practice to remove steel at that time. The criticism on that paper was that the eye would be destroyed. I have kept up the practice ever since. I have used magnetized instruments as Dr. Wilder has suggested. My experience in the past twenty-five or thirty years has been such that I continue to practice it. I remember at an ophthalmologic meeting about ten years ago a case was brought in and examined by the members of the society and no one recommended removing the foreign body by an operation. It was plainly in sight to the ophthalmoscope. It was allowed to remain and the eye was removed afterward. My experience in removing steel is that the earlier you get at it the more likely you are to save the eye, but I have saved the eye after the steel has been in four to six weeks.

Dr. J. A. Donovan, Butte, Mont.: I prefer an X-shaped incision to the incision Dr. Jackson makes. I think it has several advantages. Recently in all cases in which I am reasonably sure there is steel in the eye I give a hypodermic injection of scopolamin and morphin. It makes it easier both for the patient and for the surgeon. I have not used the scissors-magnet method, yet I have had cases in which I wish I had known of it. We know that the current has a much stronger effect on soft iron than on steel, and as the scissors need not be very hard they might be made of softer material. If a notch were made in the end of the scissors it could be used as forceps if necessary and yet would have all the advantages of scissors.

Dr. R. L. Randolph, Baltimore: As most of us have, I, too, have placed almost implicit confidence in and have been guided by *x*-ray localization. I am sure that all of us have at times marveled at the smallness of the foreign bodies, the accuracy with which they have been revealed and the consequent ease with which they have been removed, and it is only recently that my faith has been shaken. A man who had been blind for nineteen years came to me complaining that for some weeks he had been having peculiar attacks of pain and redness in the eye. The history of the case suggested a foreign body in the eye and I had a colleague make a skiagraph of the eye after the Sweet method. He reported negative findings. The redness and pain persisted and I advised that the eye be taken out, to which he consented. I would not have been surprised if the foreign body had been the size of a pinhead, but it was quite as big as my finger-nail. The object had passed through the eye and the smaller part rested in the vitreous and it was imbedded in the posterior segment of the eye near the nerve. I confess it now makes me feel uncertain in dealing with cases of this kind. The specimen which I have here shows the foreign body to have been about the width of the large blade of an ordinary penknife and in appearance not unlike the end of the latter, having a very sharp edge.

Dr. Edward Jackson, Denver: I can see that the form of scissors suggested by Dr. Sweet may be very serviceable. I think, though, that the difficulties of using the ordinary scissors perhaps appear greater than they really are. It is a thing you can easily try for yourself with the magnet and scissors and a tuft of cotton and some steel; you will be surprised at the ease with which you can use the scissors when in contact with the magnet. I use the broad rounded end of the Johnson magnet just at the joint of the scissors; you will be surprised how little it interferes with their manipulation. Of course you have to remember that you are using force there all the time. I can see that the inner-pole magnet would be peculiarly fitted for this operation, but I have never had an opportunity of using it. With reference to non-magnetic blades in scissors, it occurs to me that possibly one blade magnetic and the other non-magnetic possibly would not draw the foreign body in between the points of the scissors. I have tried to use the point of a Graefe knife in contact with the magnet and failed, and I think perhaps the drawing of the foreign body between the two points of the scissors is essential for success. I can heartily agree with Dr. Holt on the importance of operating at once. Both of my patients were operated on within a week of the time I first saw them, but in one case the accident occurred in Alabama and the other in southern Mexico. I think that probably a notch in the end of the scissors or any device to hold the foreign body would be unnecessary. The thing is to get the body in contact with the magnetic steel. The foreign body is rarely scraped off inside the eye.

The Bed Test in Nervous Dyspepsia.—A. Mathieu relates in the *Gazette Méd. Belge* that few physicians appreciate the importance of the information to be derived from the improvement or lack of improvement in nervous dyspepsia when the patients remain in bed for two or three weeks. Besides the avoidance of fatigue and the reduction of the organic wear and tear, the tendency to ptosis is mechanically combated by this *cure d'horizontalité*, as he calls it, and the results supply the needed clue for treatment. The lack of such temporary repose may annul the benefit of other treatment.

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CLINICAL FEATURES OF SO-CALLED ACUTE PELLAGRA

N. P. WALKER, M.D.
MILLEDGEVILLE, GA.

This paper is based on fifty-one cases of pellagra occurring among the colored female insane patients at the Georgia State Sanitarium previous to Jan. 1, 1909.

The first case noted occurred in January, 1906, but was not recognized. It would appear that cases had been seen at this institution previous to that time, but it was not until the articles of Drs. Searcy and Babcock appeared that the nature of the malady was understood.

During the year 1908, 629 insane colored women were treated, of whom 40, or 6.3 per cent., suffered from pellagra. Of 176 patients admitted during the year, 9, or 5.1 per cent., showed symptoms of the disease when admitted.

The inroads of this disease makes it one of the most important with which we have to deal. During the past year, pellagra, as the cause of death among the colored women, ranked second to tuberculosis only. Since it is being more fully recognized, one may safely venture the assertion that large numbers of cases will be reported.

ETIOLOGY

Use of Corn as Food.—Food products of maize form a considerable portion of the daily diet. From April 1, 1908, to Jan. 1, 1909, the corn-meal used at the institution was grown at home. At all other times it was purchased, and, to the best of our knowledge, was made from corn grown in the western states.

In one instance the patient had been suffering from dysentery for six months before symptoms of pellagra appeared. In the case of a second patient, symptoms appeared after she had suffered three months from dysentery. Both patients had been on liquid diet for the entire time and neither had been exposed to sunlight. A severe vaginitis was noted in the second case. Symptoms of pellagra appeared late in the course of a third case. The nature of the dysentery was not determined and autopsies could not be secured. It certainly does not appear that corn was the causative factor in these cases, unless the toxins are retained for long periods of time before their effect becomes apparent.

Sunlight.—In five instances patients had not been out of doors during a period varying from three to eight months previous to the appearance of the malady.

Age.—In our patients this varied from six to seventy-five years.

Season.—Of the 42 cases developing in the institution, 2 began in January, 1 in February, 2 in March, 2 in April, 3 in May, 3 in June, 1 in July, 4 in August, 5 in September, 10 in October, 5 in November, and 4 in December. Perhaps our cases are not sufficient in number to warrant generalization from them, but it would appear that there is a decided tendency for the disease to occur during the fall and winter months instead of in spring.

Color and Sex.—Without definite facts at hand it appears that pellagra is more common among colored than whites and oftener seen among women than men.

SYMPTOMATOLOGY

Inasmuch as it is extremely difficult to obtain reliable information from insane negroes, we can not make any definite statement as to the prodromal symptoms spoken of by older writers, neither can we say what symptoms usually appeared first. In the majority of instances, dermatitis, stomatitis and diarrhea were noted simultaneously. Vomiting occasionally occurs early, and slight elevation of temperature may be noted and indefinite abdominal pains may be complained of.

Dermatitis.—This is almost always symmetrical in position on extremities and frequently so on face and neck. The skin of the dorsal surface of the hands is the most frequent seat of the lesion. The whole dorsal area may be affected and the lesion sometimes extends to the elbows, where it is often well marked. The face, neck and feet not infrequently show the lesion. In two instances inflammation was noted on both breasts and a small area was noted over the umbilicus of one patient.

Contrary to the statement of several recent writers on this subject, involvement of the palmar surfaces of the hands and fingers does occur, as photographs show. Slight involvement of the plantar surface of the foot has also been seen. The dermatitis varies greatly in extent and severity. In the milder cases slight swelling and redness may be followed by desquamation without exposure of raw surfaces. In the more severe cases blebs may form within a few days of the appearance of the initial lesion. These are filled with clear serum, but may easily become infected. When the fluid is evacuated a thin gelatinous substance usually covers the exposed surface; under this material a reddish granular area is to be seen. Blebs have not been seen except on the extremities.

One must remember that more than 50 per cent. of normal adult negroes show thickening and darkening of the skin over the joints of the fingers. This may easily cause confusion. The dermatitis may recur as in chronic cases and has, in the case of one patient, been noted three times within a period of four months. When it does recur it appears very slowly and its real beginning may be difficult to determine. In the late stages comedones sometimes appear on the cheeks adjacent to the nasal folds, on the chin and may extend to the forehead, giving a somewhat characteristic appearance.

Stomatitis.—Stomatitis also varies in extent and severity. There is usually a reddening of the mucous membrane covering the inside of the cheek, the gums, the edges and under surface of the tongue and the floor of the mouth. This is accompanied by an increased flow of saliva. Following the inflammation a dirty whitish pellicle appears. This is most often first seen on the lower gums behind the last molar teeth. It may not extend beyond this position or it may involve any portion or all of the mucous membrane of the mouth. In one instance a small deposit behind the lower molar teeth was followed within twenty-four hours by an involvement of the whole visible mucous membrane of the mouth. Numerous ragged ulcers have been seen on the inner surfaces of the lips and cheeks and on the gums.

Vaginitis.—This occurred in about 12 per cent. of the patients. The inner surfaces of the labia show deposits similar to those seen in the mouth. A deposit within the vagina itself has not been noted, although the mucous membrane in several instances was of a bright red color and a leucorrhea was present.

A condition somewhat similar to that noted in the mouth was seen in the nose of one patient.

Diarrhea.—This has at some time been present in every case. In two or three only was it absent in the beginning. The movements in the majority of cases do not exceed 5 or 6 daily, usually from 3 to 6. In a few cases the number of movements reaches 10 or 12 per

day, but as a whole the diarrhea is not severe. Small particles of mucus and some blood are occasionally seen in the stools. In the later stages constipation often replaces diarrhea.

Nervous Symptoms.—These are not constant as would appear from the descriptions of the chronic forms. Many of the cases running an acute course do not show any symptoms of spinal cord lesions. In two patients afflicted with pellagra when admitted the symptoms of involvement of the motor tracts were extremely well marked. In one the clinical picture was that of amyotrophic lateral sclerosis and death was apparently due to bulbar paralysis. In one case only were there symptoms of posterior sclerosis alone. These were confirmed by autopsy.

Just preceding death marked delirium may supervene.

A considerable general mental reduction is present in many cases. The often quoted tendency to suicide by drowning has not been noted.

Of the patients who develop the disease while in the sanitarium a few have recovered. The mental condition of these do not show any material change from their former condition.

Blood.—The blood of one patient presented a typical picture of pernicious anemia: hemoglobin 35 per cent., red cells 862,000, whites 9,400, polynuclear cells 59.4, small mononuclear 32.8, large mononuclear 4.8, eosinophiles 0.4, myelocytes 2.8. In counting 500 white cells, there were noted 34 normoblasts, 15 megaloblasts and 5 free nuclei. The autopsy findings corroborated the clinical picture. Exclusive of this case the blood findings are of some interest in thirteen other cases in which partial or complete examinations were made. Hemoglobin varied from 65 per cent. to 95 per cent., red cells from 2,500,000 to 5,292,000. The white cells were decreased in 2 cases, slightly increased in 4 and within normal limits in 6. In the differential counts no constant findings of interest were noted. Excluding the above-mentioned cases, nucleated reds were found in three of ten cases in which complete counts were made. One of the chief points of interest in this connection is the fact that nucleated red cells may be found comparatively early in the disease and when the hemoglobin is normal or above. A more extended study of the blood may yield some information of value.

MORTALITY

Six patients were removed from the institution before the termination of the disease. Of the remaining 45, 28, or 62 per cent., died; 12, or 26 per cent., have apparently recovered; 5 patients are still under treatment.

Miner's Nystagmus and Traumatism.—Dransart and Famechon (*Arch. gén. de méd.*, December, 1908, No. 12, p. 749), call attention to the influence of traumatism on the development and aggravation of miner's nystagmus. They find that traumatism in general, and especially traumatism of the cranium, aggravates the nystagmus. Slight traumatisms of the eye—contusions, foreign bodies and wounds of the cornea, lesions of the conjunctiva—frequently cause an aggravation of the nystagmus or a transformation of a latent nystagmus into a visible or manifest one, and in a certain number of cases it localizes itself in the injured eye (unilateral nystagmus). They believe that at least 10 per cent. of the coal miners of the north of France suffer from a slight or latent form of nystagmus which renders their labor less productive and the miners themselves more liable to injury.

THE VAGINAL OPERATION FOR PROLAPSE OF THE UTERUS

GENERAL CONSIDERATIONS

LESTER E. FRANKENTHAL, M.D.
CHICAGO

In order to provide grounds for a common understanding of the subject under discussion, I shall make some rather elementary statements.

1. The normal position of the uterus is anteverted.

2. The external os is to be found on a line drawn from the upper border of the symphysis pubis to the lower point of the sacrum (Suppey).

3. The fundus of the uterus, in the woman standing erect, touches a horizontal line drawn across the top of the symphysis.

4. The external os rests on a line drawn across the spines of the ischium.

5. At birth the external os is on a level with the innominate line, and not until puberty is its normal level reached.

6. The entire uterus is freely movable, the only partially fixed part being the cervix.

7. The position of the uterus is maintained: (a) by its ligaments, (b) by its peritoneal covering (a congenitally low insertion of the peritoneum anteriorly and posteriorly to the uterus is etiologically to be considered in this paper), (c) by the intimate blending of this peritoneal covering with the musculature of the uterus, (d) by its vaginal walls, (e) by its vessels, (f) by the working in unison of the atmospheric and intra-abdominal pressure, (g) by its perineal support, and, then (h) (this we consider the most important of all) by its pelvic connective tissue and the pelvic fascia directly connected thereto, (i) by its nerve supply, through the lack of innervation to the musculature.

THE SUPPORT OF THE UTERUS

In order to prove that the nerve supply plays a prominent part in the support of the uterus, we need merely refer to the numerous cases of prolapse of the uterus in cases of spina bifida of the lower lumbar and sacral spine.

If the pelvic floor had as much to do with the support of the uterus (practically all, if we consult the latest articles on that subject—Halban and Tandler), then why is it that so few old women acquire a prolapse in old age? I have not reference to those who go into old age with a partial or complete prolapse; for, surely, in these old women the perineum is atrophic.

I have carefully examined thirty-six inmates of the Old People's Home, ranging in ages from 60 to 90 years, and have found but two cases of prolapse. In one instance the prolapse had been acquired while the patient was quite young, owing probably to a goiter and severe asthmatic attacks. In the other instance, on account of the mental condition of the patient, 90 years old, I could not obtain a history.

To diverge, it may be of interest for me to state that in two of the inmates, whose ages were 81 and 90, respectively, I found a complete senile atresia of the vagina, about one and a half inches from the introitus. In one, 68 years old, I found a fibroid about the size of a man's fist. In seven women, who, among them, had given birth to forty-two children, cystoceles and rectoceles of varying degrees were found. In only two of them was the external os to be found below the spines of the ischium.

From the summary of these thirty-six cases, the atrophic perineum certainly did not cause prolapse of the uterus. I have never seen a prolapse in a complete laceration of the perineum in which the pelvic connective tissue remained intact, so that the retracted musculature could find a hold on the lateral walls of the pelvis, pubes, and so forth, and I failed to find any annotation of the same in the world's literature.

Here, certainly, the perineal body can no longer give any support to the vaginal walls, and they, in turn, can give none to the uterus. When we realize that by far the most frequent cause of the prolapse is labor, instrumental labor, too rapid instrumental labor, too early bearing down during labor, labor in which there is a disproportion between the passage and the passenger, labor in which there need be no injury apparent to the musculature, in which we see the vaginal walls pushed and dragged down ahead of the presenting part, and in which, during delivery, we fear that there is great danger of the pelvic connective tissue being torn from its lateral moorings. When we see prolapse follow in these cases, we can not doubt but what the connective tissue has much to do—yes, most to do—with the support of the uterus.

Goetz cites 67 per cent. of prolapse in difficult labor; 7.5 per cent. in ascites, tumors, pressure from above, and I have added to etiology, stones in bladder (Michael Reese case); 0.8 per cent. in traumatic cases, falls, and so forth; 24 per cent. in mild cases, including the malformed and infantile cases.

Again, we have all experienced in our gynecologic examinations and operations how firmly fixed at its level, though movable backward, forward and sideward, a uterus becomes; practically unapproachable vaginally, since it can not be pulled down during an operation; and then, when we open the abdomen, we find but a few adhesions, and at the time when they become established there existed the old-fashioned connective-tissue inflammation, "cellulitis." It is the scars under that peritoneum that fix that uterus. This again goes to prove how much the connective tissue has to do with the support of the uterus.

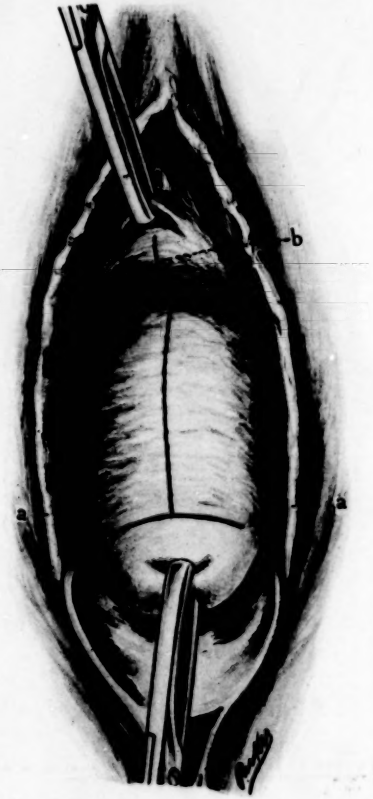

Fig. 1.—Vaginal operation for prolapse of uterus. Step 1 and part of Step 2. (a) straight or U-shaped incision; (b) longitudinal incision.

Fig. 2.—Step 2: loosening anterior wall from bladder.

RESULTS OF PROLAPSE

Recently I read somewhere that eroded surfaces on the cervix of a prolapsed uterus were primarily cracks or fissures in the mucosa from the weight of the uterus, and I believe this contention to be correct.

If an anteverted uterus prolapses, the posterior vaginal wall prolapses first. Since this, however, is rare, and

since prolapses occur more frequently in retroflexed uteri, the anterior wall prolapses first more frequently. This will be followed by the bladder, the uterus and the posterior vaginal walls, in the order named.

Kolischer says vesical displacements vary in degree from slight to total, from cystocele to complete prolapse. He cites the case in which a cystoscopic examination showed a glowing globe in the vagina.

It is interesting to study Halban's photographs and note the degrees of involvement of the bladder and the peritoneum. The distal portion of the urethra is sometimes involved, though rarely. The proximal end proportionate to the involvement of the bladder.

Fig. 3.—Step 3; bladder being pushed up to peritoneal reduplication by finger covered with gauze.

Halban states that he found the pelvic portions of the ureter dilated in 66 per cent. of the cases.

In these cases of complete prolapse with rectocele, it is found to be of extreme importance to establish the exact relationship of the rectum to the posterior vaginal wall and peritoneum (Douglas). This is done the day before the operation. We know that the rectum in these cases first loses its perineal curve, then the rectocele forms, and if feces collect in the same it pouches forward into the vaginal canal, and in severe cases out through the vulvar orifice.

Bearing in mind that the arbor vitæ, the end of the cervix and beginning of the uterine body, the entrance of the uterine artery, the attachments of the peritoneum and the microscopic difference between the cervical and uterine mucosa establish the site of the internal os as accurately as this can be done, it is interesting to note that not only the cerviz, as is commonly believed, but likewise the entire uterine body frequently undergoes an elongation.

Fig. 4.—Step 4; peritoneum opened; uterus about to be delivered; anterior fold of peritoneum in three-inch clamp.

Halban noticed difference of from 3.75 to 8 cm. from the internal os to the fundus.

In the event of an indication to do an abdominal operation for the relief of prolapse, it is worth while to take into consideration the original suggestion made by Dr. E. E. Montgomery, to add to whatever operation was done the obliteration of the pouch of Douglas, when it is usually low, the result of this procedure being to bring it on a higher plane.

A deep, infantile, low anterior and posterior pouch of Douglas is frequently observed when the abdomen has been opened for the relief of some other pathologic conditions than prolapse.

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HISTORY OF THE VAGINAL OPERATION

To W. A. Freund no doubt belongs the credit of having first cited and performed the vaginal operation for the relief of prolapse of the uterus. This operation has been more or less modified by all of us who have had a fairly large experience with the same to suit our own indications and intentions.

Schultze, Mackenrodt, Peter Miller, Frank, Duhrssen, Byford, Montgomery, Berry, Hart and Bellini as early as 1835 all deserve mention for pioneer work, and

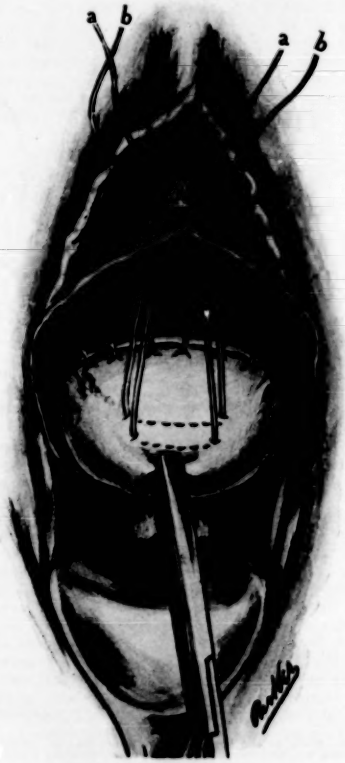

Fig. 5.—Twenty-day chromicized catgut stitches through posterior wall of uterus and vaginal mucosa and connective tissue.

Kolischer for his cystoscopic descriptions, which, by the way, are the only ones I could find in the literature.

Now, in order that the original Wertheim operation, published in April, 1899, may be better understood, I will briefly summarize the three steps of the operation as originally performed and described by Wertheim:

1. Transverse vaginal cut above cervix; open into anterior pouch of Douglas; deliver uterus; sew angles of cut up to sides of cervix.

2. Denude the anterior vaginal wall from external urethral orifice to within 1.5 cm. of the transverse cut.

3. Denude the posterior wall of the uterus by scraping and then pull it out so far that the uterus can be attached to the freshened vaginal borders all around.

Wertheim suggests in the same report that one might loosen up the vaginal wall sufficiently to cover the entire uterus.

One of the main points in the Wertheim operation is the fact that his sagittal and transverse vaginal cuts do not meet; that the neck remains covered with intact vaginal mucosa. He believes that he thereby increases the stretching of the uterine body. So far as I know, none of us have followed his method in this particular.

Dr. Watkins performed his first operation in January, 1898, but did not publish his method until November, 1899. It was as follows:

The bladder was separated from the uterus by blunt dissection and the peritoneal cavity opened in front of the uterus. The anterior wall of the uterus was grasped by bullet forceps and the organ anteverted. About two inches of the upper portion of the anterior vaginal wall was excised. The anterior vaginal wall was now sutured to the upper border of the broad ligaments lateral to the uterus, and to the fundus of the uterus with silkworm-gut sutures. The posterior vaginal wall was incised longitudinally in the medium line from the cervix downward about one inch so as to allow the cervix to

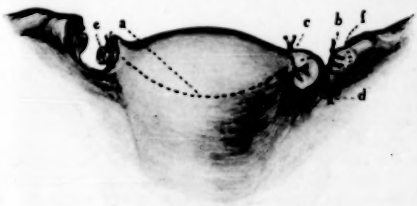

Fig. 6.—Details of Step 7: (a) curved dotted line represents peritoneum attached to posterior wall of uterus; (b) peritoneum covering stump stitched in place; (c) proximal end of tube curled on itself and fixed in that position by stitches; (d) peritoneal screen drawn in between severed parts of tube; (e) proximal end of stump ligated; (f) distal stump of tube ligated, then covered by its own peritoneum, and finally by vesical peritoneum, making it intraperitoneal.

be displaced upward and backward. The wound in front of the cervix was now closed by silkworm-gut sutures inserted transversely; that is, parallel to the line of incision anterior to the cervix. One silkworm-gut suture secured the cervix in the angle of the incision in the posterior vaginal wall. Emmet's perineorrhaphy was made to correct the prolapse and displacement of the posterior vaginal wall.

REVIEW OF EXPERIENCES WITH AUTHOR'S METHOD

My first operation was done in the early part of 1900, by the method subsequently to be described. The operation (Record 18602, March, 1902) is described by Dr. A. Merrill Miller, my resident physician, as follows:

An incision and denudation for an anterior colporrhaphy was done before incising of the peritoneum and eversion of the fundus uteri. The left tube was denuded of peritoneum for about 2 cm., removed, ends tied with silk, and the ends overlocked with catgut sutures. Similar treatment was accorded that of the right side. With the fundus strongly anteverted, silkworm gut was used as anchor stitches, three being put in. A running catgut united the anterior mucous membrane and assisted in holding the uterus anteriorly. A small perineal tear was repaired. The vagina was lightly tamponed with iodoform gauze. The result of the operation was good.

My patients ranged in age from eighteen to seventy-two years; from nulliparæ to women who have given birth to twelve children; they included one virgin.

Seven operations were done without anesthesia, in old women, before the use of nitrous oxid gas became so widely recognized as a safe anesthetic during long operations.

Many of the records of my cases have been lost. The greater number of my operations were performed during my service at Michael Reese and St. Luke Hospitals, both of which have moved into new buildings. During the removal, unfortunately, some of the records were misplaced. The greater number of the patients, however, are still under observation; and I have in my possession nearly seventy records of operations done at one hospital. That leaves unrecorded all the operations performed during my service at another hospital during the last eight years and in private, which would bring the number easily above ninety.

Judgment must be used in selecting the cases. For instance, in two cases the prolapse returned because the uterus—in an elderly woman—was exceedingly small, and I could not get sufficient support from the atrophic, narrow uterus to carry the bladder. In another case,

Fig. 7.—Steps 6 and 7; peritoneum attached to posterior wall of uterus; proximal ends of tubes curled on themselves and stitched in place. Dotted lines represent distal and intraperitoneal parts of tubes.

that of a young woman, there was a return, due, I believe, to an error in technic. I did not fix the fundus sufficiently close to the urethra, or sew the vesical peritoneum sufficiently low on the posterior wall of the uterus, and fundus and bladder came down together.

I see my patients frequently at Michael Reese or St. Luke's hospitals, at the dispensary, and in private practice, for one reason or another, and, so far as I know, these three cases are the only returns. Deaths, I have none to report. I can sincerely recommend the operation.

Let me mention one more complication that may follow the operation. In my earliest cases, before I learned to loosen the bladder well from its lateral attachments to the parametrium, I had trouble from that viscus, and in one case a bad cystitis.

My results have been eminently satisfactory. I have intentionally abstained from reporting this operative work until now, so that a sufficiently long time might elapse to justify a final opinion. The object of this paper is to recommend the operation soon to be described, but by no means to condemn any others that are being practiced, except extirpation of the uterus for prolapse pure and simple.

AUTHOR'S OPERATION IN DETAIL

I will now describe the operation in detail, as done by myself for more than eight years, since 1900.

If there is much edema and congestion I keep the patient in bed, with the foot of the bed elevated, for a few days before the operation. If there is an endometritis present, or a lacerated cervix, or an elongated cervix, this is surgically dealt with before beginning the operation proper.

1. If the uterus is very large, a transverse U-shaped incision is made; if not very large, a straight incision, across the anterior surface of the cervix.

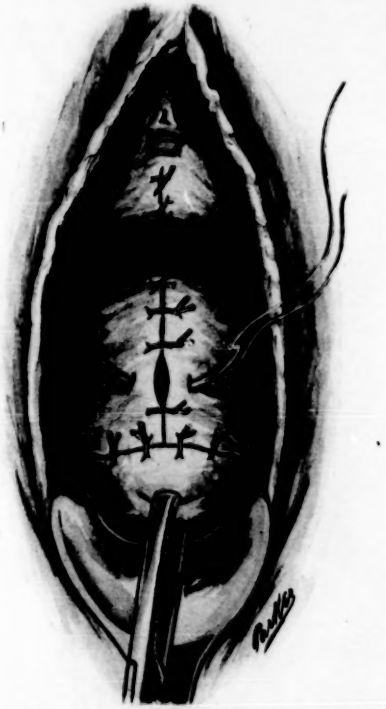

Fig. 8.—Steps 10 and 11; closing of transverse cut; closing of longitudinal cut with running and interrupted stitches.

2. I at once connect this incision with one that starts about 1.5 cm. from the external urinary meatus, to meet the transverse one sagittally. I now prefer to loosen the anterior vaginal wall from the bladder before loosening the bladder from the uterus, believing it to be more easily accomplished while the bladder is still firmly attached. I now check all bleeding, ligating where necessary with 00 chromic catgut.

3. I loosen the bladder up to the peritoneal reduplication. This, in cases of prolapse, is sometimes very difficult, because (a) there may be a congenitally low insertion of the peritoneum, and while I am hunting for the peritoneum at the tip of my finger it is being under-

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mined and is riding on the top of the finger which is doing the separation; (b) the anterior pouch of Douglas may have become entirely obliterated through adhesions formed secondarily, after the prolapse is in progress (fatal cases are reported from attempts at replacement of this variety). A male urethral sound, as large as the meatus will permit, passed into the bladder is of great assistance here, and likewise separating the bladder laterally first, will bring one into the correct layers for median separation. Again, all hemorrhage must be checked, the cervical artery being frequently torn. All this time the peritoneal cavity has not been invaded. Now, I separate the lateral attachments of the bladder from the parametrium, for unless this is done the bladder will be held down laterally, while at its middle it will ride on the posterior wall of the everted uterus, resembling a letter U turned upside down. Cystitis due to retention in these pockets will follow. Thus, in one of my earliest cases, I was compelled to do a secondary operation (St. Luke's case), which relieved the condition.

4. I now open the peritoneum, introduce a speculum anteriorly, and push the bladder up against the symphysis and out of the way. Before delivering the uterus, however, I catch the anterior fold of the peritoneum in a three-inch clamp, since it is at times exceedingly difficult to find the peritoneum after the delivery of the uterus through the opening made in the peritoneum. Especially is this true if the uterus is bulky and the introitus of the vagina narrow.

5. I deliver the uterus.

6. I at once sew the anterior peritoneum held in the three-inch clamp to the posterior wall of the uterus with a running catgut stitch, as low as possible, near the internal os, unless I wish to ligate the tubes.

It will be noted that the peritoneal cavity does not remain open for more than a few seconds; besides, no blood and no raw surfaces come in contact with the peritoneal cavity. And, besides, this attachment of the peritoneum serves to hold the uterus in the exaggerated anteflexed position. If, however, the patient is still in the child-bearing period, I do not sew the peritoneum posteriorly quite as low as in the climacteric cases, since we need the peritoneum later on to assist in the perfect separation of the two cut ends of the tubes.

7. I then make a circular cut through the peritoneum of the tubes. About 1.5 cm. from the cornu of the uterus strip the peritoneum back both ways, ligate the tube twice with fine silk, cut out a piece of the tube between the two ligatures, and then draw the peritoneum back over the raw stumps, sewing it up with fine chromic catgut. Then, curling the proximal stump under itself, I sew it once more in that position.

8. I now lead the peritoneum in between the two cut surfaces of the tube and fix it in the gap with one or two catgut stitches. This, technically, is not very easy, but quite possible, and I consider it very essential for many reasons. It makes all of the operation extraperitoneal excepting the distal part of the tube, which is intraperitoneal, though well covered with peritoneum. (I call it a peritoneal screen). And then pregnancy is thereby absolutely prevented (Ries).

If the uterus is very large, a strip may be cut out of it, and if it contains fibroids they may be enucleated.

9. I fix the uterus as close as I possibly dare to the urethra against the pubic bones. I use twenty-day chromicized catgut for this purpose, beginning at the upper end of the vaginal incision, going through the vaginal mucosa to the side of the urethra, then the connective tissue, through the posterior wall of the uterus, and out again on the opposite side of the vaginal mucosa. Two such stitches are placed and closed at once.

10. I now sew up the original transverse vaginal cut.

11. If there is redundant vaginal mucous membrane, more than I need to cover the uterus, I cut this away and close the anterior vaginal wall by short running and interrupted stitches, after having replaced the cervix back into the vagina in the hollow of the sacrum.

12. Last, I do as high a colpoperineorrhaphy as the sexual life of the patient will permit, being assisted in this by the knowledge of the exact relationship of the rectum to the vaginal and posterior pouch of Douglas by the examination made the day before the operation. The vagina is cleansed, packed with vioform gauze to stop all oozing, the bladder emptied and the patient placed in bed.

It takes me about one hour to do the operation, without ligation of the tubes; about one hour and a quarter in cases in which sterilization is indicated.

I let my patients rise to urinate and let them out of bed on the third day (Ries), unless there are some particular reasons for keeping them confined.

SUMMARY

1. The two essential features in this operation are: (a) the tamponing of the vaginal outlet and the support of the bladder by the artificially fixed uterus; (b) the repair of the perineal body, vagina and muscles and the narrowing of the vagina, which sustains the atmospheric pressure, while the intra-abdominal pressure is brought to bear from the direction of the spine and assists in maintaining the fixed uterus in position.

2. Operative cases must be divided into (a) the child-bearing, (b) the non-child-bearing, (c) tumor cases, and they must be dealt with accordingly.

3. It is necessary to differentiate between mere hypertrophic elongation of the uterus and prolapse of the vagina, on the one hand, and simple prolapse of the uterus, on the other. For instance, the fundus might be at its proper height; the external os might be, however, away below the spines of the ischium.

4. To Wilhelm Alexander Freund belongs the credit of first having performed the operation in its most essential features; all subsequent operations done abroad and at home are either valuable additions to or mere modifications of Freund's operation.

5. Pregnancy is the only serious contraindication to the operation other than those mentioned.

6. The operation has its limitations, as described in this paper.

7. For cystocele I know of no better operation.

8. For prolapse of the uterus it is the most serviceable procedure I have employed in the last twenty years.

9. The pelvic connective tissue is the essential factor in the maintenance of the proper elevation of the uterus in conjunction with the other structures referred to.

10. The pelvic floor does not deserve the credit of being the mainstay of the uterus.

11. Complications, such as tumors of the adnexa and uterus, can be dealt with through the same peritoneal incision. Even posterior vaginal drainage could be employed if deemed necessary.

12. The peritoneal cavity (in uncomplicated cases) does not remain open for more than a few seconds;

therefore the dangers of shock, infection, intestinal adhesions, intra-abdominal hemorrhage and the loss of sponges, instruments, etc., in the abdominal cavity are out of the question.

13. Sexual life is absolutely satisfactory.

14. Menstrual complications have never been observed following the operation.

15. The urethra loses its S shape and becomes elongated, but neither incontinence nor retention have followed the operation since I have learned how to avoid them.

16. Pregnancy must not be allowed to occur after the operation just described, so that every possible conservative surgical device must be insisted on to prevent the same.

17. In old women the operation can be done with very little pain without anesthesia. The incision into the peritoneum and later on the skin incision in the perineum are the only painful parts of the operation. The latter could be done under local infiltration anesthesia.

18. All anatomic parts touched during the operation remain extraperitoneal, except the stump of the distal part of the tube, and it is carefully covered with peritoneum.

19. There ought to be no fatalities, barring surgical accident.

20. The permanent results of the operation after eight years' experience are as perfect as after the best known surgical methods of treating any hernia in any other part of the body, two-thirds of 1 per cent. of relapses being my results in nearly a hundred cases.

109 Randolph Street.

THE PROPHYLAXIS OF INTERSTITIAL KERATITIS*

H. GIFFORD, M.D.
Professor of Ophthalmology and Otology in the University of Nebraska
OMAHA

Considering the great interest to the oculist of interstitial keratitis, the question of its prophylaxis has received very shabby treatment. While it may be discussed in some of the numerous works that I have not seen, I have found no mention of it in any of the dozen English, German, and French text-books and handbooks that I have consulted. The nearest approach to a discussion of the subject that I have seen is in a valuable paper by C. S. Bull, in which the conclusions of Fournier as to the prophylaxis of hereditary syphilis in general are quoted. And yet the subject is one which should receive careful consideration, by the oculist and syphilologist as well as by the general physician.

By interstitial keratitis, in this paper, I refer only to the typical form, which occurs almost always between the ages of three and sixteen years, and almost never after the twenty-fifth year. The more I see of this disease the more convinced I become that Hutchinson is right in attributing practically all of it to inherited syphilis. I know that Panas and Fournier place the ratio at only about 41 per cent. I know also that this disease is caused by tuberculosis more often than was formerly supposed; also that Sedan[2] asserts that in Algiers it is more often caused by malaria than by syphilis; also that Neal[3] has frequently seen it in China apparently as a result of severe diarrhea; but, on the other hand, Mauthner and Silex find the ratio of syphilitics to be 80 per cent. and 83 per cent. respectively; and, in a recent careful study of the subject, Stephenson[4] of London finds a ratio of 69.3 per cent. In the agricultural region in which I practice, where tuberculosis in children is relatively rare and the average nutrition rather high, I find other well-marked signs or histories of inherited syphilis in approximately 90 per cent. of my cases of interstitial keratitis;[5] and when we consider how often it is impossible to get a history in direct infection, I believe it is safe, in the absence of other obvious causes, to make a tentative diagnosis of syphilis in all cases of interstitial keratitis in patients between the ages of two and twenty-five. This, of course, does not mean that syphilis is unusually common in this region, but simply that the other causes of impaired nutrition are relatively inactive. For myself, then, the problem of the prophylaxis of interstitial keratitis resolves itself, for practical purposes, into the prevention and cure of syphilis, particularly of the hereditary form—a field so wide that only a few of its features can be treated here. With the prevention of syphilis in general, with the exclusion of syphilitics from matrimony, with the treatment of the parents, this paper need not concern itself. These points are amply considered in general works. Nor can I attempt to discuss any large part of the diagnosis of hereditary syphilis. I shall merely lay stress on certain peculiarities of the teeth as aids in diagnosis, on the treatment of the disease when it has broken out in one eye and on the prophylactic management of children marked with the disease but without any active manifestations of it.

To take up the last-mentioned phase of the question: I think it is highly probable that if all children between the ages of three and sixteen could be examined for the more obvious signs of inherited syphilis, and if those showing such signs could receive a long-continued course of specific treatment, controlled if possible by the serum diagnosis test, the number of cases of interstitial keratitis and of syphilitic deafness could be greatly reduced. Such examinations should be conducted by the physician in all families in which any member of the family has a history or symptoms which arouse a suspicion of syphilis. In public institutions all children should, on entrance, be inspected with this point in view, and when positive signs are found the appropriate treatment should be carried out, even if the child is otherwise apparently healthy. This recommendation as to treatment may need qualification if it turns out that the serum diagnosis is reliable in inherited syphilis. If this proves to be the case the treatment may perhaps be safely omitted in those showing repeatedly a negative result of the serum test; but even then the latter would have to be repeated at intervals of several years.

THE TEETH AS AIDS IN DIAGNOSIS

In the diagnosis of inherited syphilis the ordinary signs are well enough known. An excellent description of these and of many less common signs is given by

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

1. Med. Rev., April 4, 1908.
2. Abstr. in Arch. f. Augenh., 1888, 4, p. 443.
3. Ann. Ophth., April, 1908, p. 369.
4. Reprint from Med. Press and Circular, Dec. 25, 1907.
5. In this estimate I exclude traumatic interstitial keratitis (known in one of its forms as disciform keratitis), as well as certain one-sided forms of the disease which occur in adult life.

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Fournier.[6] I merely wish, in this connection, to emphasize the importance of certain dental peculiarities. The old well-worn Hutchinson incisor is often scandalously misrepresented in otherwise excellent text-books. To give a fair idea of the Hutchinson teeth no one picture can suffice. To illustrate this I reproduce some of the figures (Fig. 1-10) from Hutchinson's original papers.[7] These central permanent upper incisors, on their first appearance, show instead of a notch, a central irregular lobe, as in Fig. 2, which generally wears away soon but which sometimes persists for several years. Later on the notch itself is obliterated by the rapid wearing away to which such teeth are subject. Hutchinson says that the notch is never seen after the age of twenty-five or thirty, but I can not recall a case in which it could be seen well after the age of fifteen. When the notch is gone the character of the tooth can still be recognized in many cases by the fact that the lateral lines after bulging slightly, half-way between the gum and the edge of the tooth, converge slightly till they meet the cutting edge. This bulging of the lateral lines I consider the most permanent feature of

Figs. 1-8. "Hutchinson" teeth; lobed and notched incisors.

the Hutchinson tooth. With regard to the milk teeth, Hutchinson, in his second paper, made some important observations which have practically passed into oblivion; at least I have not seen them mentioned by anyone else. One of these refers to the condition shown in Figure 9, in which the incisors are small and discolored while the canines are healthy-looking. This is a frequent condition in syphilitic children of the age subject to this condition. Figures 10 and 11 show another peculiarity of the milk canines on which Hutchinson lays great stress, and which I have seen a number of times. A central discolored blunt peg projects from and is separated by a shallow groove from a base or collar of normal-looking tooth tissue. If we imagine the same sort of defect occurring in a molar tooth we shall have a defect on which great stress has been laid by Darier, although it was, according to Suker, first described by the elder Fournier. Darier[8] describes these syphilitic first permanent molars as having the summit formed by four tuberosities or tubercles of a yellowish color surrounded by a groove separating them from the whiter enamel-covered body of the tooth, which bulges out on all sides beyond the tuberculated crown. These tubercles soon wear down or become carious so that unless seen in early life one finds simply a carious crown (or, as Edmond Fournier[9] says, if caries does not set in, such teeth later on present a characteristic flat summit devoid of the normal cusps). Figure 12 shows the cast of such a molar from one of my own patients. Figure 13 is a reproduction of the cut accompanying Darier's paper. It shows, instead of four tubercles, which he describes, a central irregularly crenated mass, a form also described by Fournier.

I consider these Fournier molars and the peg-shaped milk canine of Hutchinson to be fully as characteristic of syphilis as the Hutchinson incisor, and their recognition is of the greatest importance, since they often can be seen either together or separately at an age when the permanent incisors are not to be seen. The only mention of the tuberculated first molar that I have

Fig. 9.—Small, discolored incisors with healthy canines.
Fig. 10.—Milk canines in which a discolored blunt peg projects from a base of normal-looking tooth tissue.

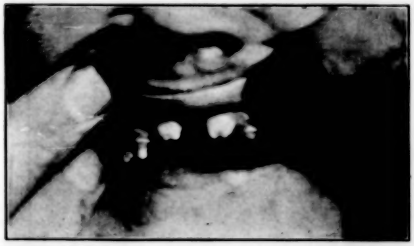

Fig. 11.—Girl, aged 8 years, subject of interstitial keratitis. Note characteristic permanent incisors and equally characteristic temporary canines. This girl also has well-marked Fournier molars.

seen outside the writings of Fournier and Darier is in Suker's paper.[10] Another form of syphilitic tooth on which Darier lays stress is the tuberculated permanent canine shown at the right of Figure 8 and in Figure 14. Hutchinson also mentioned this form but did not consider it so characteristic of syphilis as did Darier. I have only seen a few examples of it, but they have all been in patients with other well-marked signs of syphilis.

There is one other form of first permanent molar which I have observed in children with interstitial keratitis and other signs of congenital syphilis, and which I have not seen mentioned by any author. This is what I call the sloped molar, shown in Figure 15. In this form the base of the tooth as it emerges from the gums is much wider than the crown, the cusps being fairly well formed, with little or no tendency to decay. I have seen it only half a dozen times but in

6. Fournier, Edmond: L'hérédo-syphilis tardive, Paris, Masson & Cie.
7. Tr. London Path. Soc., ix and x.
8. Bull. et mém. Soc. franç. d'opht., 1903, p. 216.
9. L'hérédo-syphilis tardive, p. 100.
10. Reprint from Medicine, September, 1904.

all these cases it was of some importance, as the other teeth showed nothing decidedly wrong. It is probably due to the same influences of malnutrition which when acting more decidedly produce the Fournier molar.

TREATMENT

As to the prevention of the disease in the second eye, after it has once appeared in one eye, the sentiment appears to be universal that treatment has but little influence in this respect; and for many years, while under the influence of the idea that interstitial keratitis was, at most, a parasyphilitic manifestation of malnutrition, I used the specific treatment with moderation only, and invariably obtained negative results in the attempt to prevent the affection of the second eye; in fact, the immediate effects of antisyphilitic remedies were so slight that I placed little reliance on their use; but since the discovery of the spirochete, the evidence that the disease is due to an active invasion of this germ has become so overwhelming that the necessity for radical specific treatment is patent.

Fig. 12.—From 6-year-old child with interstitial keratitis. First permanent molar at the right is of the Fournier or Darier type.

Fig. 13.—Reproduction from Darier's paper showing characteristic permanent molars with central discolored mass crenated, instead of tuberculated.

For the last three years I have treated interstitial keratitis with the same vigorous course of inunctions which I should use in an ordinary syphilitic iritis, having a piece of the mercurial ointment about the size of the patient's thumb (that is, for a man of 150 pounds weight, about 275 grains of the ointment) rubbed in for at least half an hour every day for a week, unless the gums or teeth get sore before that time is up. This course is repeated after a week's rest and then for one week out of every three for the next two to four months, according to the severity of the case; after that the period between the courses is lengthened to from four to six weeks. This is kept up for a year, and for the second year the course is taken for one week out of every two months. All through the active course of the disease atropin and hot applications are used vigorously, and enough salicylate of sodium is given to control the severity of the symptoms of congestion and photophobia. For a full-grown patient from 90 to 150 grains a day for a few days is generally sufficient to break the force of the inflammation, and after this, 90 grains a day on three or four days in the week is generally sufficient. After the congestion has been entirely absent for three weeks, the atropin and salicylate are discontinued and not used again unless the congestion reoccurs. In the interims between the courses of mercury I have used arsenic and iodids in moderation. I have a decided impression that I have been obtaining better results since adding the arsenic to the treatment of this disease, but whether it is best to give it in the form of injections of atoxyl, or some other of the newer preparations, or by the mouth in Fowler's solution, I am not prepared to say. Since adopting this line of treatment I am certain that my general results have been decidedly better than they formerly were, and I have seen three typical cases in which the disease has failed to appear in the second eye during periods varying from one to three years. These may be mere coincidences, and I know what long periods are sometimes reported as occurring between

Fig. 14.—Girl of 16 years with interstitial keratitis. Hutchinson central incisors unusually small. Note also, at the right, permanent tuberculated canine.

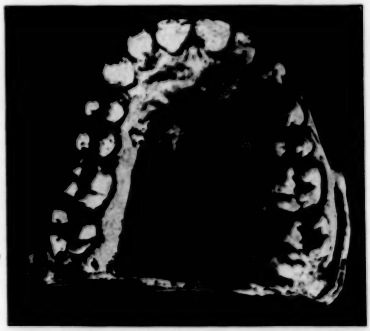

Fig. 15.—"Sloped" permanent molars in boy of 14 years, of robust build and good previous health until puberty, when he developed characteristic bursitis of right knee joint, interstitial keratitis, and necrosis of hard palate. Younger sister, a year later, had similar train of symptoms; teeth otherwise normal.

the infections of the two eyes, but the fact that in twenty-three years of eye practice I have never, before, seen an attack in the second eye postponed longer than three or four months, gives me a decidedly hopeful feeling as to the possibility of preventing the disease in the second eye when the first eye is seen early in the attack.

SUMMARY

To sum up and repeat, I believe that the following points may be made with reference to the prophylaxis of interstitial keratitis. First, in the text-books on ophthalmology and syphilis the diagnosis of hereditary syphilis should receive much more attention than it usually does; and, instead of the single faulty cut so commonly used, at least half a dozen figures should be presented, to show not only the Hutchinson incisors, but the other more important forms of syphilitic teeth. Second, all children in public institutions and in private families who show any of the well-marked signs of inherited syphilis should receive a course of antisyphilitic treatment, even if in other respects they seem to be entirely well; the results and indications of this treatment being controlled, if possible, by the serum diagnosis test. Third, where a case of syphilis, inherited or otherwise, appears in a family, all the other members of the family should be examined for signs of the disease, and if such are found, the bearer should be subjected to specific treatment. Fourth, by an extra-vigorous use of specific treatment the disease may be kept out of the second eye in a larger proportion of cases than has hitherto been thought possible.

867 Brandeis Building.

ABSTRACT OF DISCUSSION

DR. L. WEBSTER FOX, Philadelphia: The treatment of such patients is of very great importance. As a rule, as you all know, interstitial keratitis becomes evident in early childhood. I happened to be under the tuition of Jonathan Hutchinson in London along with other young men who listened to that distinguished general specialist when he called our attention not only to the central incisors, but to the molars as well, and when the French seemed to try to assert that it was a syphilitic condition unlike that of the central incisors, we who were under the great Hutchinson felt that his field had been invaded; those of you who have his monograph in which the drawings occur can see what I mean. Such cases are hard to handle. We see many of them in Philadelphia. I have at present six or eight patients in my clinic undergoing treatment. There is a very peculiar condition that arises and makes you feel that your hypodermic injections of mercury and your inunctions and gray powder in large and active doses do not have the effect they should. In other words, a keratitis goes on almost to the point of breaking down; the patients have been saturated with gray powder and sometimes with hypodermics of sublimate and yet in spite of that active treatment, when you feel you have gone almost beyond the point of endurance, the one eye gets well and then the other eye goes through the same process. What shall we do? There is only one thing, and that is to keep on with the mercurial and prophylactic remedies to prevent the development of these cases. They seem to develop just before early puberty in children that mature from 11 to 13. We have such cases with us constantly; and the English surgeons follow that line of treatment, and have similar results. I have also found that in such cases after the parents have gone through the mercurial treatment the cornea does not become clear. While the discussion was going on in regard to regeneration of the cornea it occurred to me that operation might be available in these cases. And yet I have seen corneas with dense tissues, with no light transmitted, clear up. I have found dionin very efficacious; and I have found that we can clear up these corneas by the use of sugar of salt 5 gr. with dionin.

DR. S. D. RISLEY, Philadelphia: The fact mentioned by Dr. Fox, of the frequent occurrence of interstitial keratitis in the second eye after the first was far on the road to recovery, is a quite common experience. Its occurrence while the patient is saturated with mercurials suggests some other etiologic factor than the specific inheritance. In a recent paper I have suggested that it is impossible that the cornea alone would suffer from the syphilitic poison. The ductless glands, including the thyroids, are doubtless also impaired in their function, a fact which may, and doubtless does, account for many features of the symptom-complex characterizing inherited syphilis. Until the function of these glands is restored or reinforced by suitable treatment, recurrence of low forms of disease, especially in the avascular structures, of which the cornea is a type, is to be expected. In the paper already mentioned cases are reported in which rapid recovery of the interstitial keratitis, and striking improvement in the general health, followed the administration of the pulverized thyroid of the sheep after the usual treatment with mercurials, etc., had failed.

DR. F. H. VERHOEFF, Boston: Since it has been shown that in interstitial keratitis the spirochetes are present in the cornea, it would naturally suggest itself that we should endeavor to reach these organisms locally by mercury. So I have used the bichlorid in 1 to 5,000 solution three or four times a day. While in most of my cases both eyes have been affected at the outset, yet in those in which only one eye was affected the other eye has not become affected. Although I have used it in only a limited number of cases, it seems to me better than any other method of treatment; it certainly does no harm and is worth giving a thorough trial.

DR. WALTER L. PYLE, Philadelphia: I heartily approve of Dr. Gifford's plea for the prompt and persistent administration of antisyphilitic treatment in these cases, with the hope that the disease in the second eye will be prevented or greatly modified. The difficulties in proving a positive syphilitic heritage are so many that we are often justified in assuming such a family history in doubtful cases. There is, however, one point I want to strongly emphasize; that is, the urgent necessity of appropriate dietetic and hygienic treatment. We must remember that most of these patients are from the lower classes, and are insufficiently or improperly fed and live in the most unhygienic environments. As ambulant cases they are given prescriptions for the mercurials and iodids, and little attention is paid to the proper regulation of their personal and domestic hygiene. With the possibility of such distressing results as often follow this disease, perhaps forever destroying the victim's usefulness as a wage-earner, it seems almost imperative that many such patients should be admitted to the hospitals, and in their care and treatment the cooperation of the internist and dietetic expert be sought. I would not withhold the antispecific treatment, but I would have it intelligently and discreetly administered and augmented by the necessary hygienic and dietary regulations. It must also be remembered that juvenile malnutrition is not always confined to the homes of the poor. In fact, too often does the pediatrist see improper feeding producing grave nutritional disturbances among the children of the higher classes.

It is now authoritatively stated that many profound disturbances of metabolism may give rise to interstitial keratitis, and also to its associate symptoms, such as irregularities of the teeth, bone deformities, skin lesions, etc. Many observers to-day, particularly in Great Britain, believe that tuberculosis is almost as important a cause as syphilis. Nor must we overlook derangements of the important glandular secretions, and Dr. Risley has done well to call attention to the occasional value of thyroid extract in addition to the ordinary treatment.

DR. JOHN GREEN, St. Louis: I feel personally indebted to Dr. Gifford for calling our attention to the signs in the milk teeth in these cases. I believe that it is a matter that should be brought to the attention of the internist and the pediatrist even more than the ophthalmologist. In discussing this subject recently with a pediatrist of wide experience I found that he had but the vaguest idea of the peculiarities of the milk teeth in inherited syphilis.

DR. MYLES STANDISH, Boston: I think it may be necessary to say a word on the other side of the teeth question. I hap-

pen to have treated two children in a family in which there was a clear specific ancestral history and in which there was no doubt that the children had the so-called inherited syphilis, and in which there was a succession of three children with interstitial keratitis at about 8 years of age, and in whom all the teeth were perfect, both the first and second teeth. Therefore we do not want to base our diagnosis as to whether the interstitial keratitis is specific or not on the presence or absence of these teeth.

Of late years I have been led by some of the younger men to believe that a certain proportion of these cases are undoubtedly tuberculous. When they occur in persons of more advanced years—16, 18, up to 30 years of age—the probability is that we shall ultimately find that they are of tuberculous origin. I am not sure of that fact, but I believe that is the trend of the times. And even in cases known to be specific, non-specific treatment is not to be despised. For eight or ten years I believed and taught that interstitial keratitis was not due to the inheritance of the specific infection of the germ of syphilis. I have rather retreated from that position now. But during all of that period I treated all of my patients, both in private practice and in the Massachusetts Charitable Eye and Ear Infirmary, on hygienic principles, exactly as if tuberculous, and I never could see but that my patients did fully as well as those of my colleagues. So that this subject must be considered from both sides; it is not already proved that specific treatment is best, and it is not positively to be stated that all patients with interstitial keratitis have these peculiarities of the teeth.

DR. G. H. PRICE, Nashville: I was glad to hear what Dr. Standish has just said in regard to some of these cases of interstitial keratitis, because I have found it difficult at times to discover whether the condition is of specific origin or not. The classical treatment of this condition, namely, that along antisyphilitic lines, I have found sometimes did not reach the case and improvement did not occur as rapidly as we expected.

DR. A. R. BAKER, Cleveland: I endorse what Dr. Risley has said in regard to the use of thyroid. Along the southern shore of Lake Erie we have an unusual amount of trouble from the thyroid gland, and it is said that we have there more operations for the removal of the thyroid than in any other part of the country. It is almost a routine practice with us to give preparations of the thyroid gland in all cases of interstitial keratitis. Before its use became popular we had found from clinical experience that the syrup of the iodid of iron was beneficial. We used it not with the idea that it was antisyphilitic, but on account of its good effect in all such cases. Now, in my early training in London we were taught to give immense doses of mercury, and I think one of the things I may be punished for hereafter is the large doses I gave. It is necessary to use mercury, but the patient must be in good condition first; it must be given so as to improve rather than to injure the general health of the patient. It is sometimes necessary to treat the patient weeks or months before giving the mercury. Generally speaking, now, in a case of interstitial keratitis of one eye, I do not expect the other eye to be involved. I think when I was using mercury alone the second eye nearly always became affected. I also give iron and arsenic, feed the patient, recommend fresh air, etc., as in tuberculosis. A frequent symptom in such cases is enlargement of the knee. The other day three such children were brought into my clinic. All of them had had enlarged knees. We find this almost as constant a symptom as the Hutchinson teeth in syphilitic cases.

DR. A. E. BULSON, JR., Fort Wayne: I want to emphasize the statement of Dr. Standish as to the tuberculous origin of such cases. We have been accustomed to attribute them in large measure to syphilis. Recently I have undertaken some tests to determine the number of cases due to tuberculosis and I have been surprised to find how many respond to the diagnostic tests for tuberculosis. Of course the majority of the cases in which the tests have been applied have been those in which a definite syphilitic history could not be established and in which there were no syphilitic stigmata. It seems to me that when we give this subject further study we shall find that syphilis is not quite such a large etiologic factor in the production of these cases as was supposed. I also want to insist on the importance of dietetic management, emphasized by Dr. Pyle. I know a large percentage of the patients will recover under diet alone. I also believe that hygienic treatment is of extreme importance. Often we find children with interstitial keratitis being kept indoors and in darkened rooms. I think that is one of the worst things that can happen; it has been my policy invariably to keep them out, if necessary bandaging the eyes. But above everything else, I regulate the diet, and give the patients good, wholesome, nutritious food.

DR. H. GIFFORD, Omaha: There are three points in my paper that I thought were to a certain extent new: In the first place, the importance of looking after children with signs of inherited syphilis whether they have interstitial keratitis or not. Go into the orphan asylums, the public schools, and all institutions for children and if you find them with inherited syphilis look up the families and if any reasonable grounds are found for giving antisyphilitic treatment give it. If they are tuberculous, treat the tuberculosis. If you obtain the reaction for tuberculosis, that is no reason for concluding that the patients have not syphilis. The second point was to use arsenic in connection with mercury in these cases. I have a very definite idea since pushing arsenic with mercury that I have obtained better results than before. Third, in using mercury do it at once, go at it hard and keep at it hard. I used to think that syphilis had little to do with interstitial keratitis, but I have come to the very definite conclusion that it is the active manifestation of the syphilitic organism. Before when I used the iodids, etc., I invariably had the other eye affected within six months; but since giving arsenic and mercury and the salicylate I do not, and I have a very definite idea that the salicylate is of decided value in connection with the other things, and I certainly do not see serious cases such as I used to have.

In regard to Hutchinson's relation to these molar teeth: Hutchinson described a single Fournier molar, but he did not think it had anything to do with syphilis. The point the Frenchman made in regard to it is certainly of importance and value. The form of molar I refer to, what I call the sloped molar, is there when the other teeth are all right. The first case was that of an unusually well-built boy, who had been absolutely well, robust and healthy up to 13; after that he had an inflammation of the knee, interstitial keratitis and necrosis of the hard palate. Then in a couple of years the sister came in with the same thing and I gave her mercury, arsenic and salicylate treatment and she had only one eye affected. I think the point made by Dr. Pyle as to diet is a good one. None of us know too much about diet. I do not think we get too much light from the men who make it a specialty.

Mammalian Cerebellum.—Van Rynberk (*Folia Neuro-biol.*, I, pp. 403-19, 535-51) gives a summary of the recent work on the cerebellum. The work of Bolks on the comparative anatomy of the cerebellum of mammals is especially criticized. Van Rynberk concludes, "From the above, we can consider the cerebellum of the mammalia, from the standpoint of comparative anatomy, as one of the fundamental group of organs, in which (cerebellum) the subdivisions show a varying degree of development and the structural and functional complexes a degree of development comparable to the various muscular divisions of the body." Microscopic anatomy shows the cerebellum to be the turning-point of two chains of reflexes—a somato (and cephalo-cerebellar) and a cerebrocerebellar reflex arc. The first belongs to the propioceptive system (the system of muscular sensation). Functionally the cerebellum serves as a reflex-strengthening organ of the motor nervous mechanism. By means of its somatic and cephalic connections it takes part in the form regulation of all voluntary muscles of the body, and its afferent cerebral connections indicate that it gives strength and constancy to voluntary muscular movements. These functions are controlled from centers in the cerebellum corresponding to the muscle groups of the body. By means of its efferent fibrous tract in the propioceptive system the cerebellum communicates with the cerebrum and thus completes the somatopsychic path.

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SIMPLE FIBROMA OF THE ORBIT *

WILLIAM E. GAMBLE, B.S., M.D.

Professor of Clinical Ophthalmology and Associate Professor of Ophthalmology University of Illinois.

CHICAGO

Simple fibroma of the orbit I take to be one that springs from the retrobulbar connective tissue, i. e., the orbital fascia within that cavity. Orbital fibroma commonly arises from the periosteum of the orbital walls and less commonly from the sheath of the optic nerve; occasionally from the capsule of the lachrymal gland and rarely from the tendons of the muscles (G. Mizno[1]).

Fig. 1.—Photograph taken 1 year before operation. Deformity not so great as at time of operation.

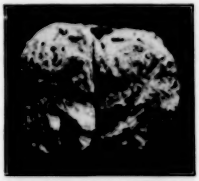


Fig. 2.—Tumor split in halves, showing cut surfaces, hinging on capsule. Gaping portion indicates part removed for section.

Marchetti[2] reports a case of "peripheral fibroma" which developed on the infraorbital nerve "causing elephantiasis of every part of the skin which was supplied by the compressed nerve." It is altogether probable that this tumor should have been classified as plexiform neuroma.

A few reports have been made of subcutaneous fibroma of the eyelids (Mizno[1]).

Fibromata of the skin of the eyelids occur in general fibromata (Oliver[3]).

Heretofore it has not been definitely determined that fibroma is ever derived from retrobulbar connective tissue. Lagrange has collected reports of cases which, to more or less extent, argue such origin.

In my opinion, Goldzeicher[4] comes the nearest to proving the point. He reports a case of freely movable encapsulated tumor in the orbit in a male, 17 years of age. A report of the microscopic examination is as follows:

Hard connective tissue fibers bound the tumor together, containing sparse spindle-shaped cells. Fibers generally run parallel; in spite of the hardness of the tumor contain many blood vessels of all shapes, with endothelium; fibers of the periphery of the capsule over the posterior orbital surface were compressed and poor in cells. The impression given is that the neoplasm arose from a vein.

A most careful study of the microscopic section is necessary in order to differentiate between endothelioma and fibroma. It is in the hope of shedding light on this mooted question that the following case is here reported:

Fig. 3.—Low power: × 125; *a* indicates capsule.

Patient.—Mr. L., aged 55 (Fig. 1), came under my observation Aug. 21, 1905, on account of a drooping of the right eyelid, he having been referred to me by Dr. F. C. Dielman, Fulton, Ind. The patient first noticed this deformity three years before. During the previous six months the deformity had rapidly become worse. There was no history of injury or other disease of the eye. The eye was displaced downward and forward. There was a dull ache when the patient was out in the wind. Vision was 20/20. There was no change in the fundus. Deep pressure with the little finger between middle of the upper orbital margin and the eyeball revealed a hard movable mass which was not tender on pressure. There being no history or evidence of syphilis, I advised an operation.

Operation.—On August 22 an incision was made in the brow, conforming to the supraorbital margin, down to the

* Read in the Section on Ophthalmology of the American Medical Association, at the Sixtieth Annual Session, held at Atlantic City, June, 1909.

1. Mizno, G.: Nippon Gankwa Gakukwai Zasshi, 1904, v, No. 8.
2. Marchetti: Ann. di ottal. e Lavori d. Clin. ocul., Naples, 1904, xxxiii, 29.
3. Oliver: Ophth. Rec., viii, No. 6.
4. Goldzeicher: Centralbl. f. prakt. Augenh., 1894, xviii, 65.

periosteum. The orbital fat being dilacerated by a grooved director and the pointed scissors, a white, hard, encapsulated tumor about the size of a small hickory-nut came into view (Fig. 2), which was pulled forward and with the aid of the director and fingers was readily enucleated.

Tumor.—Microscopic examination (Fig. 3) showed it to be a pure fibroma, homogeneous throughout. Few blood vessels were present. Parsons[5] says that the best test of simple fibroma would seem to be encapsulation, fibrous tissue com-

Fig. 4.—High power microscopic view of same section. × 300; *b* indicates capsule.

posing the growth being matted together at the periphery. How well this tumor meets this test is shown by the accompanying photomicrographs (Figs. 3 and 4).

Postoperative History.—Nearly four years have elapsed since the operation. No recurrence has taken place. The eye is restored to its normal position and the cosmetic effect is good.

I am under obligations to Dr. W. L. Grosvenor, Dr. W. A. Walters for section of tumors, and to Dr. C. G. Darling for photograph.

103 State Street.

ABSTRACT OF DISCUSSION

DR. GEORGE F. KEIPER, Lafayette, Ind.: The description of the tumor removed by Dr. Gamble is exceedingly interesting. An examination of the photomicrographs submitted would lead to a desire to examine sections from other parts of the tumor, in order to be sure that the tumor is a simple fibroma. The presence of spindle-shaped cells lends suspicion as to endothelioma. In fact, a section of normal tissue adjacent to the tumor should be submitted. In all cases, in addition to the tumor a piece of normal tissue adjacent to the tumor should also be submitted to the pathologist, that comparison may be made between what is normal and what is supposedly pathologic. At the conclusion of the paragraph quoted from the second volume of Parson's "Pathology of the Eye," is this statement: "Endotheliomata require careful examination in some cases to distinguish them from simple fibromata, and it is not unlikely that further research will eliminate simple fibromata from the list of orbital growths." By the way, the term "endothelioma" should be discarded and sarcoma should be called sarcoma.

5. Parsons: Pathology of the Eye, ii, 228.

DR. G. C. RING, Philadelphia: Possibly it has fallen to my lot to see rather more orbital growths than the average ophthalmologist because of my identification with an institution which treats only tumors. I have recently completed the study of a growth that I believe unquestionably belongs in this class. It is not by any means easy clinically to make such a diagnosis. First of all, we naturally expect that a benign growth should be of long standing. The case I have in mind was treated by several physicians; a number are present who have seen it; it had a history of between six and seven years' growth. Now, a history of that length or even more does not eliminate, as we perfectly well know, the possibility of malignant disease. The well-known cases of Lenhart and others indicate that endothelioma, or one of the modifications of sarcoma, may exist for ten or more years. But if it has such a long history, if the rotation of the eyeball is extensive in most directions, all but one or two, and if no metastasis is present, we can at least begin to think of the possibility of a benign growth. If it happens to be displaced downward and inward as the growth I have in mind was, then sinus disease must necessarily be carefully considered. And if we find today, as I think most of us do, that the *x*-ray has not given the final word in sinus diagnosis, and if we likewise find, as I think most of us do, that illumination of the sinus has not given the final word, then it becomes extremely difficult to make a diagnosis in such cases, and I think only exploratory incision and operation and the microscope will give the final word. The patient just mentioned, on whom I have recently operated, gave some symptoms strongly suggestive of sinus disease. Indeed, a sinus disease diagnosis had been made by two most competent men. The case gave some suggestions of a malignant growth, and a corresponding diagnosis had been made. But when all the points were carefully considered, and when one saw the case as I did, having back of me the preliminary study made by the others, it was not difficult to suggest finally that the growth was benign.

I therefore made, in order to eliminate the possibility of sinus involvement, a modified Killian incision and definitely decided that the sinus bore no relation to the symptom-complex. The growth was so situated—had developed up and in—that a Kroenlein operation was decided to be practically out of the question. A large growth, at least as large as a large walnut, was removed and examined by a capable microscopist, who unhesitatingly pronounced it a benign orbital fibroma. There were no metastatic suggestions, and of course while it is far too early to know what the ultimate outcome will be, so far as the records are concerned the growth seems to be a pure orbital fibroma. The microscopic details and entire history of the case will be presented at the coming meeting of the American Ophthalmological Society.

Clinical Notes

TRACHOMA BODIES

POSSIBLY THE ETIOLOGIC FACTOR OF TRACHOMA *

BROWN PUSEY, M.D.
CHICAGO

In April, 1907, Halberstädter and Prowazek[1] described some bodies which they had found in epithelial cells taken from trachomatous conjunctivæ and which, they maintained, were the etiologic factor of trachoma. A few weeks later Greeff,[2] Frosch and Clausen,[3] working together, published papers describing the same bodies and ascribing the same importance to them.

As was to be expected, this discovery and the claims of the discoverers have been the subject of much atten-

* From the Department of Ophthalmology, Northwestern Medical School.

1. Halberstädter und Prowazek: Ueber Zelleinschlusse parasitärer Natur beim Trachom, Arb. a. d. k. Gsndhtsamte., 1907, xxvi, 1.
2. Greeff: Ueber eigenthümliche Döppelkornschen (Parasiten) in Trachomzellen, Deutsch. med. Wchnschr., 1907, No. 23.
3. Greeff, Frosch and Clausen: Untersuchungen über die Entstehung und die Entwicklung des Trachoms, Arch. f. Augenh., 1907, lviii, 1, 52.

tion and discussion; just now much is being published on the subject in the German journals. Other investigators have taken up the work, and in suitable cases are confirming it; that is, in acute untreated trachoma they are finding these bodies almost constantly. In the later stages of the disease the bodies are not found in the epithelial cells. Two of the most recent articles on this subject are by Stargardt[4] and Herford,[5] respectively.

Supporting the idea that the bodies found in acute trachoma are the causal factor of this disease is the fact that persistent search by many investigators has failed to reveal similar bodies in normal conjunctivæ or in pathologic conjunctivæ other than those affected with trachoma. Stargardt, in the article mentioned above, reports the search, with negative results, for the bodies in many epithelial cells taken from the conjunctivæ suffering with various affections other than acute trachoma.

Another important fact supporting the idea that these bodies are the causal factor of trachoma is the finding of them in conjunctival cells taken from apes which have been experimentally infected with the disease. This experiment, which has been made several times by various investigators, of course, has been properly controlled.

Lately I have had in my charge a case of distinct clinical acute trachoma in which I found these bodies (see illustration). The smears from which the drawing was made were prepared by scraping the everted conjunctiva with the edge of a cover-glass; the scrapings were spread over the glass and allowed to dry in the air; then the material was fixed for twenty minutes in methyl alcohol; then stained for twenty-four hours with Giemsa's stain. Cell 1 shows the beginning of the growth of the bodies in the cell as described by Prowazek; Cells 2 and 3 show the development in later stages. The separate bodies—trachoma bodies, according to Prowazek—are smaller than small cocci. They are supposed not to be bacteria. Cultural efforts have been without result.

Some investigators maintain that in these bodies we have, without question, the cause of trachoma (Greeff); others are not so sure. Certain it is the matter as it now stands is one of much interest.

70 Madison Street.

Trachoma bodies: 1, Beginning of growth of bodies in the cell; 2 and 3, development in later stages.

4. Stargardt: Ueber Epithelzellveränderungen beim Trachom und andern Conjunctivalerkrankungen, Arch. f. Ophth., lxix,3, 525.
5. Herford: Beiträge zur Trachomforschung, Klin. Monatsbl. f. Augenh., March, 1909, xlvii, 225.

A MODIFIED "CORNELL" *X*-RAY TUBE

R. L. SUTTON, M.D.
KANSAS CITY, MO.

About one year ago Geyser,[1] of New York, described an *x*-ray tube of new and novel design. This appliance, which he called the "Cornell" tube, was made of heavy lead glass, with the exception of a circular window of flint glass for the passage of the rays. When the tube was in use, this window was applied to the skin, the glass being tightly pressed against the area to be treated.

A modified Cornell *x*-ray tube.

The principal claim advanced for the new apparatus was that when properly employed long exposures could be given without danger of burning the patient. In over 5,000 cases Geyser had never seen any untoward results. Lesser factors in favor of its more general adoption were the increased effect secured from exposures at the closest possible range, the protection of the operator without the intervention of extra shields, and the moderate cost of the tubes.

The principal argument against its use was that many experienced Roentgenologists considered it as yet in the experimental stage, and believed that eventually it would fail to justify the claims of the inventor.

1. THE JOURNAL A. M. A., March 28, 1908, p. 1017.

Soon after the publication of Geyser's paper I secured one of the tubes from the makers of the original instrument. My experience with it was such that, shortly afterward, I ordered two more and, later, four more. The main fault I found with the tubes was their instability. Occasionally one would have a working life of fifty or sixty hours; the next would probably puncture the first time it was connected up. In addition to this, the small amount of space in the interior of the bulbs (which average only about 4.5 cm. in diameter) rendered a proper regulation of the vacuum extremely difficult. Because of these objections I had the manufacturers make for me a larger tube, the body being 12 cm. in diameter and the anode and cathode being separated by a space of 7.5 cm.

In order partially to protect the patient from the high-frequency sparks that are given off at the circumference of the window, the barrel is surrounded by a soft rubber band, 4.5 cm. in width, the outer edge of which projects slightly beyond the edge of the tube and comes in contact with the patient's skin. Enough stimulation is secured to ensure protection, and the patient experiences but slight discomfort.

I agree with Snow,[2] that the partial or complete immunity from dermatitis gained by the use of these tubes is due to a stimulation of the tissue activities which the rays ordinarily inhibit. By interposing a broad sheet of soft rubber (1 cm. in thickness) between the window and the closely shaven skin of a guinea-pig I have been able, on two separate occasions, to cause burns with exposures of less than fifteen minutes each.

The larger tube has proved very durable. After more than forty hours of use it is still in excellent condition. Although tubes of the Cornell type can not be satisfactorily employed in all cases, because of either the size of the lesion to be attacked, or the topography of the parts involved, they can be utilized in a large percentage of skin diseases in which the *x*-rays are indicated.

276 Ridge Building.

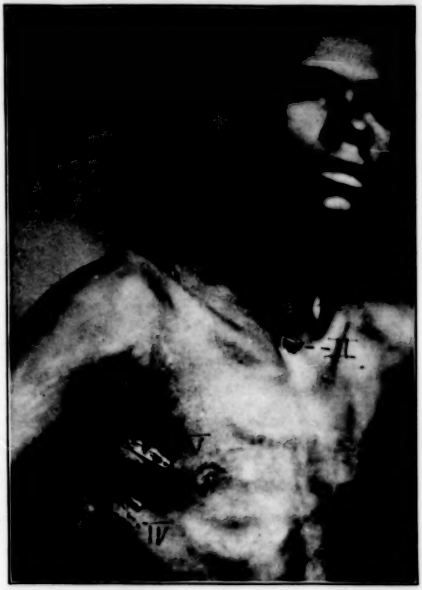
PENETRATING WOUND OF THE LUNG

W. LOWNDES PEPLE, M.D.
First Assistant to the Chair of Clinical Surgery, University College of Medicine
RICHMOND, VA.

The following case is of interest, not only on account of its very extensive character, but also as it illustrates a type of wound that has become extremely rare since men have discarded the spear in battle.

History of Accident.—The patient was a tall, well-muscled negro, 20 years of age, engaged in saw-mill work. On June 22, 1908, about, 10:30 a. m., while in a stooping posture in front of his saw he was struck full in the throat by a rough, undressed, blunt-ended, pine strip, eight feet in length, and an inch by an inch and a quarter in diameter. The strip was caught in the teeth of the saw, which was making 6,000 revolutions per minute, and hurled like a javelin with terrific force. It made a ragged wound of entry in the median line of the throat, a half inch below the cricoid cartilage, went downward and to the right, beneath the skin and superficial fascia, behind the sternum and clavicle, over or through the apex of the right lung, crashed through the third and fourth ribs in the midaxillary line, plowed beneath the muscles and fascia and presented beneath the skin over the seventh rib in the posterior axillary line, which it stretched to the utmost. It was submerged eighteen inches from its tip to the wound of entry. After making an effort to pull out the stick, using both hands, the man fell and called for assistance from the other workmen, who also failed to dislodge the strip. The long end was then sawed off, leaving ten or twelve inches for a grip, and a physician summoned.

First Treatment.—Dr. J. T. Doles, of Ivor, Va., reached the patient an hour later. The man was profoundly shocked, and absence of the right radial pulse led to the conclusion that the subclavian artery had been torn. Having stimulated the patient, cleaned the parts and prepared two yards of iodoform gauze for packing, Dr. Doles enlarged the skin wound, without anesthetic, and withdrew the stick, the forefinger being thrust deep into the wound to disengage the splinters which hung on the fascia and muscles when traction was made. There was a tremendous gush of blood, but with long dressing forceps the gauze strips were packed as deeply and tightly as possible into the wound and soon the bleeding was under control. A large hematoma quickly formed over the seventh rib at the point of the stick. This was opened and a quantity of blood evacuated and the wound then packed with iodoform gauze for dependent drainage. Occlusive dressings were applied and moderate stimulation instituted.



From photograph of patient with penetrating wound of lung, taken before the tubes were removed. It shows: (I) the wound of entry healed; (II) a tube in the incision over the suprasternal notch; (III) the wound of exit in the posterior axillary line; (IV) the tube leading into the pleura at point of resection of the seventh rib and midaxillary line; (V) the tube in the upper arm of the U-shaped incision last made exposing the area of greatest trauma.

The next day the patient had recovered enough to travel and was brought to Richmond and put under my care at the Virginia Hospital. On June 23, the second day after the injury, the temperature was 102, the pulse 118; there was no cough or bloody expectoration, and no pain; there was dulness over the upper right lobe, well-marked emphysema under the skin in the axillary region over an area larger than the hand. Respiration was about 22; dressings saturated with blood and serum, throat and side both draining profusely. For a week the patient's condition remained about the same, the temperature never going over 102, the pulse 120, and respiration remaining

2. Jour. Advanc. Therap., January, 1909, p. 52.

about 22 to 24. He seemed comfortable and gave no evidence of a pneumonia (as commonly accepted). The drainage, still sero-sanguineous, was most profuse. An *x*-ray by Dr. A. L. Gray showed consolidation of the upper lobe, but the iodoform gauze did not cast a sufficiently heavy shadow to map out the track made by the stick, as I had hoped. The drainage strips had been shortened from day to day and on the 29th, the seventh day after injury, I removed, as I believed, all, reaching well below the clavicle to get the buried end, and replacing fresh gauze in both wounds. Dr. Garnett Nelson made a physical examination and reported fluid in the pleural cavity. The patient's temperature was running from 103 to 104 and his pulse 120.

First Operation.—On July 1, the tenth day after injury, the seventh rib was resected in the mid-axillary line, lengthening the wound of exit. A cavity was found as large as the fist but I could touch the lung on all sides. About a pint of dark serum was evacuated and the patient had a lower temperature and seemed much improved for several days. The original wound of exit at the seventh rib had healed. The throat wound was pouring out quantities of green pus, but the high skin flap held this back, puddling it in the wound.

Second Operation.—On July 5, the fifteenth day after the injury, I made an incision under cocain just above the supra-sternal notch and with my finger as a guide introduced a large rubber tube over into the apex of the right lung. This drained profusely and kept the cavity empty, the patient being turned on his left side. The improvement following this step was but temporary. The pleural operative wound was all this time draining serum, while pus flowed from the incision in the neck. On July 11, the twenty-first day after the injury, the original counter-incision reopened and drained thick greenish pus.

Third Operation.—On July 15, the twenty-fifth day after the injury, under cocaine, I prolonged the puncture wound upward and backward, following a sinus that led toward the axilla close to the ribs. Several pieces of pine bark escaped, and a good-sized rubber tube was put in. Pus now flowed freely from this wound and the neck incision, but only serum from the pleural cavity.

My conclusions were that the stick had gone diagonally through the apex of the lung (this idea was warranted by the emphysema), burst through the seventh interspace, post-axillary line; that adhesions of parietal and visceral pleura around the wound of exit had taken place; that the splinters and bark had caused the sinus to suppurate and reopen below, leaving the pleura cut off and draining serum. Improvement was again only temporary. Though the drainage was profuse, the patient's temperature ran higher, reaching 104; his pulse was rapid and weak. He began to lose flesh and strength. There was marked dulness behind, extending below the tip of the scapula. Thinking to find pus retained here I again operated, this time under chloroform.

Fourth Operation.—On July 20, the thirtieth day after injury, a large piece of the seventh rib was resected, revealing the lung, now completely collapsed. Next the wound of exit was enlarged and its sinus dissected up toward the axilla, several pieces of bark were removed and a good sized piece of iodoform gauze that lay between the muscles and the ribs. This had been packed in across the chest from above or had gradually worked down the sinus. Two loose pieces shattered from the third and fourth rus, one and one-half and two inches long were removed. The incision was carried up anteriorly, making a horseshoe flap, which was raised so the area could be thoroughly cleansed and a large drainage-tube placed in the upper angle, giving a more direct route to the infected area. The sharp edges of the ribs from which the pieces had been broken could be plainly felt. The flap was sewed back, leaving small drains below and a tube of good size in the pleura. The throat wound was next explored and a piece of bone as long and as broad as the first joint of the thumb was taken out of the sinus behind and below the clavicle. This evidently was split from the manubrium.

Postoperative History.—Improvement was now rapid, drainage soon materially lessened and he was soon out of bed. Small bits of bark continued to work out. He was required to blow water from one lithia bottle to another several times a day and under this exercise his lung rapidly expanded. Before the tubes were removed a second *x*-ray plate was taken to show the track of the sinus by the drainage tubes. The patient left the hospital August 18, at the end of the seventh week, with a well-expanded lung and but little drainage. The latest report received is dated November 14. The patient is able to do some work, is not as strong as before the accident, but feels well. Wound 2 in the throat still discharges a little and a number of splinters and pieces of pine bark have been extruded. The other wounds have healed.

1000 West Grace street.

A MODIFIED APPARATUS FOR FRACTURE OF THE CLAVICLE

J. A. NYDEGGER, M.D.
Surgeon, U. S. Public Health and Marine-Hospital Service
PITTSBURG, PA.

Of the bones of the body the clavicle is perhaps the one most frequently broken. Hence the frequency with which practitioners are called on to treat this form of injury. In the greater proportion of these cases, as is

Fig. 1.—Front view of patient with dressing for broken clavicle applied.

known, the break occurs near the junction of the middle and outer third of the bone.

The clavicle fills the office of a brace and acts to prevent the shoulder from falling on the thorax. When the clavicle is broken the shoulder will fall downward, forward and inward. The action of three muscles, the sternomastoid, the trapezius and the pectoralis major, are of great importance in considering the proper treatment of these cases. The two former muscles tend to pull the fragments upward. The fibers of the pectoralis major that take their origin from the highest part of the clavicle, because of the semirevolution made by the tendon of this muscle, are attached lowest down along the bicipital groove of the humerus. By forcing the elbow far backward the fibers of the great pectoral are pulled on, the upward pull of the two muscles mentioned is counteracted, and the tendency of the fragments to jut up under the skin and show as a deformity is overcome.

Numerous methods of dressing have been suggested and made use of in the treatment of this condition. The prime indications are to keep the shoulder upward, outward and backward.

The Velpeau apparatus has long been in use and is often resorted to in the present day, but it has objections. In spite of the frequent examinations, the dressing will stretch and almost invariably it becomes loose and displaced, thus permitting falling of the shoulder, separation of the fragments, with the too frequent occurrence of deformity at the point of fracture.

Freer's dressing of adhesive plaster, better known as Sayre's, while an improvement over that of Velpeau, also has its objections. It is sticky and disagreeable to the patient and is very liable to become loosened, and is difficult to keep properly applied. More particularly is

Fig. 2.—Back view of patient with dressing for broken clavicle applied.

this the case in warm weather or when the patient perspires. The results obtained by this method are frequently disappointing.

In attempting to maintain the fragments in position in the case of a comminuted fracture of the clavicle in the outer third, and after having tried in vain by the use of the other known dressings, I hit on the following plan of fixation, which proved so satisfactory in this and in other similar cases subsequently treated that I have thought that it might be of some interest to give a short description of the method of applying the dressing, etc., with illustrations showing the dressing in position.

The dressing used is a modification of Sayre's and Moore's double figure-of-eight. The elbow is pulled well back and lifted at the same time, so as to lift the shoulder. A strip of adhesive plaster three and a half inches wide and about four feet in length is carried from within, outward, around the arm a few inches above the elbow and horizontally across the back and made to encircle the chest, in the same manner that the first strip of adhesive is applied in the Sayre dressing. By this means the shoulder is secured in correct position and the arm is fixed at the side. This strip of adhesive plaster does not show in the photographs, as it is concealed by Bandage 3 being placed over it. Bandage 2, a four-inch gauze or muslin strip, begins at the side of the neck above the injured clavicle and is carried well outward toward the shoulder, thence beneath the forearm and upward behind the arm over the shoulder of the same side, crossing the chest diagonally at the base of neck to the axilla of opposite side, and thence beneath the axilla and diagonally upward across the back to the point of beginning, forming a single figure-of-eight. Several layers of the bandage are securely applied in the manner above described. By this means a support is furnished to the forearm and elbow, and in addition the combined weights of the arm and shoulder are utilized for the purpose of exerting pressure on the fragments at the intersection or crossings of the bandages. In some cases it will be found necessary to insert a pad under the dressing at the seat of fracture for the purpose of maintaining more pressure on these parts.

Bandage 3 is applied in the same manner shown in the illustrations. It is carried horizontally around the chest over the already fixed arm over Bandage 1, and, while acting to maintain this adhesive strip more securely in place, it also assists in holding the arm more firmly to the side and lessens motion. A support in the form of a sling for the hand and forearm completes the dressing.

Figure 1, from a photograph taken at the time of removal of apparatus some three weeks subsequent to application, shows but a slight degree of looseness and derangement of the dressing, although it was not changed or molested in the interval. The patient was comfortable throughout and the result obtained was highly satisfactory. Figure 2, from a photograph of another patient, taken directly after the dressing was first put on, shows to better advantage the method of applying same than does Figure 1.

In the somewhat limited number of cases, amounting to five or six in all, in which this method of putting up a fractured clavicle was resorted to, for which nothing new or original is claimed, I believe better results were obtained than could have been obtained with the use of either the Velpeau or Sayre apparatus. Less deformity is noticeable after healing of the fracture, and through the thorough fixation of the arm and shoulder a greater degree of comfort is thereby afforded to the patient, the annoyance resulting from the daily examination and rearrangement of the dressing is done away with, and on the whole a more satisfactory outcome is, I believe, obtained.

I trust I may be pardoned for suggesting the trial of the above described modified apparatus to those who may meet with the difficulty so frequently encountered in maintaining the proper reduction and fixation of the parts in treating fracture of the clavicle.

Preventive Hemostasis in the Nose.—Escat has been frequently able to do away with the necessity of postoperative tamponing of the nose by a preventive application to the field of operation of ferric chlorid, or of a 1 or 2 per cent. alcoholic solution of tannin. The patient is then watched for half an hour or so, and if no secondary hemorrhage occurs tamponing is not necessary. The astringent and coagulating action of these drugs is peculiarly effectual in the nose, as he shows by his experience with them related in the *Archives Internat. de Laryngologie*, xxii, No. 3, page 870.

New and Nonofficial Remedies

SINCE THE PUBLICATION OF THE BOOK "NEW AND NONOFFICIAL REMEDIES, 1909," THE FOLLOWING ARTICLES HAVE BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK ARE ASKED FOR.

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT SO FAR AS KNOWN IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

(Continued from page 2107, Vol. LII)

MERCURIC SALICYLATE—Hydrargyri Salicylas.—Hydrargyrum salicylicum (Pharm. Germanica, edit. 4; Pharm. Helvetica, edit. 4).

Mercuric salicylate, $Hg.C_6H_4.O.COO$, is a mercuric salt of salicylic acid in which one atom of mercury has combined with one molecule of salicylic acid by replacing the hydrogen atoms of the phenolic hydroxyl and carboxyl groups.

Mercuric salicylate may be prepared by precipitating the mercuric oxide from 27 parts of mercuric chloride as directed in the case of Hydrargyri Oxidum Flavum, washing, placing in a flask with a little water and 15 parts of salicylic acid, and heating on a water-bath with agitation until the mixture is perfectly white. Collect the precipitate, wash until free from acid, dry at 30° to 40° C. (86°-104° F.), and finally at 100° (212° F.).

Mercuric salicylate occurs as a white amorphous powder, tasteless, odorless and neutral to litmus paper, slightly soluble in water or alcohol, but soluble at the ordinary temperature in solutions of sodium hydroxide and sodium carbonate with formation of a double salt. From these solutions it is reprecipitated by acids. It is soluble also in warm solutions of chlorides, bromides and iodides. On ignition it is entirely volatilized. Strong mineral acids decompose it, especially on heating, and after this decomposition hydrogen sulphide precipitates black mercuric sulphide from the solution.

When shaken with water the resulting solution gives a violet coloration with ferric chloride.

An aqueous solution of mercuric salicylate is not precipitated or colored immediately by hydrogen sulphide or ammonium sulphide.

0.1 Gm. of mercuric salicylate heated in a small tube with a small crystal of iodine produces the characteristic orange to red colored mercuric iodide (Pharm. Germanica, edit. 4). 0.3 Gm. mercuric salicylate mixed with about 3 Gm. sodium chloride and dissolved in 100 Cc. boiling water should upon diluting to 400 Cc., acidifying with hydrochloric acid and passing hydrogen sulphide, yield 0.2 Gm. mercuric sulphide.

Action and Uses.—Antiseptic and antisyphilitic. It has been stated that it is easily tolerated by the stomach and that it does not produce salivation, but it may produce some gastrointestinal irritation occasionally, even when used hypodermically. The lack of salivation is probably due to its insolubility and slow absorption, not to any peculiarity of its effects. It is used as a disinfectant and as a remedy in syphilis and in certain skin diseases.

Dosage.—0.003 to 0.008 Gm. (1/20-1/8 grain). For hypodermic injections a suspension in liquid paraffin, one part in 10, is used; before injecting the mixture must be well shaken in order that the insoluble salt may not remain at the bottom. The needle and syringe should be thoroughly cleansed after each injection, as the insolubis drug readily clogs the instrument. At first, 0.65 Cc. (10 minims) of the mixture described should be injected deeply into the gluteal region every fourth day and this may be increased to every second day if no symptomatic evidences of the action of the drug appear. It is used in the form of dusting powder and ointment (1 in 10). A suspension in a mucilaginous vehicle (1 in 300) is used as an injection in gonorrhea, 1 Cc. (15 minims) being injected at a time. As a disinfectant the salicylate is as powerful as mercuric chloride, its great drawback being its insolubility; in order to overcome this difficulty the following formula has been devised: Mercuric chloride, 1 part; sodium salicylate, 3 parts; dissolved in distilled water, 100 parts.

PICRIC ACID—Acidum Picricum.—Acidum Picricum (Pharm. Française, 1908). An organic acid, $C_6H_3O_7N_3$ or $C_6H_2.OH.(NO_2)_3$ (1:2:4:6), obtained by nitrating phenol.

Picric acid occurs as orthorhombic yellow prisms, odorless, but with a very bitter taste, with a specific gravity of 1.81 and melting at 122° C. (251.6° F.). It is explosive when heated to a high temperature. It is slightly soluble in cold water, imparting a yellow color to a very large volume of water. It is soluble in 81 parts water at 20° and in 25 parts at 80°. It is easily soluble in alcohol and in 5.7 parts of dry pure ether it dissolves to a colorless solution. In wet ether it is 4 times as soluble, producing a yellowish solution. (Pharm. Française, edit. 1908.)

Aqueous solutions dye organic matter such as silk, wool and skin a characteristic yellow, but do not dye vegetable fibre.

1 part picric acid dissolved in 9 parts water at 60° C. and a warm solution of 2 parts potassium cyanide in 4 parts water when mixed give a red color. This solution on being cooled yields reddish brown plates of potassium picrocyanin or isopurpuric acid $C_8H_4KN_5O_8$.

Ammonium sulphide produces a red color in solutions of picric acid which becomes deeper on heating. (Pharm. Française, edit. 1908.)

The absence of salts of picric acid is demonstrated by its complete solubility in ether. (Pharm. Française, edit. 1908.)

Action and Uses.—Picric acid is an irritant to the skin and mucous membrane. Taken internally, it may produce nausea, vomiting and diarrhea. The urine has a yellow or red color and may show signs of nephritis. The skin and mucous membrane may be stained yellow simulating jaundice. Red blood cells are partly dissolved and the white cells are increased in number. It is said to be a very useful application for burns, but the application has been said to be painful in certain cases. Toxic symptoms have been produced in some instances, especially in children, by absorption through the skin.

Dosage.—0.025 to 0.1 Gm. (½ to 2 grains). A solution containing 6 parts of picric acid, 60 parts of alcohol to 1,000 parts of water has been recommended for local application.

PHLORIDZIN — Phloridzinum.—Phlorizin.—A glucoside, $C_{21}H_{24}O_{10} + 2H_2O$, from the root of the apple, pear, cherry, etc.

Phloridzin occurs as minute white slightly pinkish crystals, of a silky texture, or as a pale yellow light crystalline powder, odorless and having a bitter but later a sweet taste. It is sparingly soluble in cold but freely soluble in hot water, from which it crystallizes on cooling. It is soluble in alcohol (1-4) and sparingly soluble in ether. The solutions are laevogyrate. At 100° C. (212° F.) it loses water and at 107° C. (224.6° F.) melts. When heated to 130° C. (266° F.) it becomes solid again and then melts again at 171° (338° F.). At 200° (392° F.) it assumes a red color, due to the formation of rufin.

Boiled with dilute acids it is converted into sugar, phlorose and phloretin. Exposed to air in the presence of ammonia it assumes a purple color. Cold concentrated sulphuric acid dissolves it to a yellow solution and at 25°-50° C. (77°-122° F.) it becomes red.

Action and Uses.—Phloridzin destroys malarial parasites. When administered to man or animals, it produces glycosuria of renal origin. Polyuria is also produced. It has been recommended as an antiperiodic in malaria, but its use is not justified in view of the possible injury to the kidney which it may cause. It is used as a means of testing the functional activity of the kidney.

Dosage.—To test the permeability of the kidney 0.005 Gm. (1-12 grain) is dissolved in 1 Cc. (15 minims) of a 0.5 per cent. solution of sodium carbonate and injected hypodermically. Glucose should appear in the urine in from 15 minutes to one-half hour and the secretion of sugar should continue for from two to four hours. The test gains in diagnostic value if the urine of each kidney is collected separately. Phloridzin may be given per os in pills massed with glucose syrup or suspended in a mixture with acacia or tragacanth. The internal dose is 0.3 to 0.6 Gm. (5 to 10 grains).

UREA.—Urea, $CO(NH_2)_2 = CH_4ON_2$, is the diamide of carbonic acid.

Urea occurs as colorless transparent prismatic crystals almost odorless having a cooling saline taste. It is somewhat hygroscopic. It is soluble in water (1-1), more readily in hot water. Soluble in alcohol (1-7) and (1-1) in boiling alcohol. It is insoluble in ether and chloroform. It fuses at 132° C. (269.6° F.), evolving ammonia and ammonium cyanate. Kept at 150° C. (302° F.) for some time most of it is converted to biuret. If the temperature is raised to 170° C. (338° F.) the biuret evolves ammonia and is converted to cyanuric acid. Heated with water under pressure it is decomposed into ammonium carbonate. It is not alkaline but is a weak base and though a diamide, forms salts like a monacid base; these are acid to litmus. By hydrolysis it is converted into ammonia and carbon dioxide. Nitric and oxalic acids produce precipitates when added to concentrated solutions of urea.

Action and Uses.—Urea is an active diuretic; it is rapidly eliminated and is not poisonous. It has been claimed, without convincing proof, to have the power of dissolving urinary calculi. It has been recommended in the treatment of tuberculosis, but this use of it is generally being abandoned. It may be employed where diuresis is indicated, though it appears irrational in primary renal disease.

Dosage.—0.5 to 4 Gms. (10 to 60 grains). Urea is given in solution, or it may be enclosed in cachets.

(To be continued)

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[For other information see second page following reading matter]

SATURDAY, JULY 3, 1909

FURTHER STUDIES ON ANAPHYLAXIS

There has just been issued a bulletin entitled "Further Studies on the Phenomenon of Anaphylaxis,"[1] which is the fourth bulletin issued by the Public Health and Marine-Hospital Service on this subject. It will be recalled that the first publication in English dealing with the phenomenon of anaphylaxis was issued by that service in 1906,[2] and the above-mentioned bulletin is a continuation of these studies.

Rosenau and Anderson have devoted themselves largely to studies of the intimate nature of the factors that make up the phenomenon of anaphylaxis, subordinating for the time being the more or less unprofitable discussion of the theory of its mechanism. In their last publication they endeavored to determine what practical use there would be, in the prevention of anaphylaxis, in the administration of various hypnotics; and for this work they used urethane, paraldehyd, chloral and magnesium sulphate, but found that none of these substances had any influence on the fatal outcome of anaphylaxis.

In order to determine whether the effect of heat in modifying the anaphylactic properties of proteins depends on its rendering the proteins insoluble, rather than on any chemical changes it may have wrought, the authors had recourse to a very ingenious experiment. This was, first, to dry the proteins, then to heat them to the desired temperatures, redissolve them and test them for their anaphylactic properties. It was found that horse serum and egg-white, when dried and then heated, would stand a temperature of 130 C. for two hours or 170 C. for ten minutes without appreciably modifying the anaphylactic properties of the respective proteins. These experiments seem to confirm the authors' suggestions as to the way in which heat acts in modifying the anaphylactic properties of proteins.

They present preliminary evidence that there are antibodies concerned in the mechanism of anaphylaxis. It was found that, by mixing the blood serum of a sensitive guinea-pig with normal horse serum, apparently the toxicity of the horse serum was decidedly increased for sensitive guinea-pigs. The authors report that, on a test of the susceptibility of a guinea-pig that had received its first injection of serum 1,096 days before, it was found that the animal was still extremely sensitive; from which they conclude that guinea-pigs probably retain their susceptibility during their entire life.

These studies, as is the case with the previous studies of Rosenau and Anderson on the same subject, are characterized by minute attention to detail and caution in drawing conclusions on the limited data. As the authors themselves state, caution must be observed in work on anaphylaxis in drawing conclusions from limited data, because of our lack of knowledge of the principles involved.

1. Rosenau, M. J., and Anderson, John F.: Further Studies on the Phenomenon of Anaphylaxis. Bull. Hyg. Lab. No. 50, U. S. P. H. and M.-H. S., Washington, April, 1909.

2. Rosenau, M. J., and Anderson, John F.: A Study of the Cause of Sudden Death Following the Injection of Horse Serum. Bull. Hyg. Lab. No. 29, U. S. P. H. and M.-H. S., Washington, 1906.

LAY MOVEMENTS FOR THE IMPROVEMENT OF PUBLIC HEALTH

The initiative long ago taken by the medical profession of the United States in behalf of the public health and a national bureau of public health is at last receiving gratifying support from the laity. The fact that medical societies are to-day holding open meetings to which the people are invited, not only to listen but to participate in the discussion of the great health problems of to-day, is probably the greatest factor in public enlightenment on this question. In a number of states the public health administration is organized with reference not only to its executive value, but also to its educational worth to the people. In several states the county health officers are called in annual convention, sometimes called "schools," for the serious study of hygienic questions and for their discussion with the people. In view of this sort of activity it can not be otherwise than that a reflex influence should set in; or, in other words, that the people themselves should begin to take the initiative.

The most conspicuous example of this sort of movement was originated something like two years ago as the result of a paper that Professor J. Pease Norton read before the American Association for the Advancement of Science. This resulted in the organization of the now well-known Committee of One Hundred on National Health, with Professor Norton as executive secretary. The personnel of this committee is probably as influential in molding public sentiment as any that could be selected. It is far reaching in its influence, which is made all the more extensive through its official publication, *American Health*. The example set before the country by Professor Norton may be well emulated by others, and the National Committee of One Hundred might well be imitated in every state. There is, indeed, no reason why state, and, for that matter, county committees, might not be organized in confederation with the now existing national committee. This movement is already well advanced in Ohio under the management of Mr. Ben LaBree, Jr., as state or-

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ganizer, acting under the auspices of the original Committee of One Hundred. If this plan is carried out, the resulting influence will be great beyond present foretelling.

Further action along this same line was taken at the Atlantic City Session of the American Medical Association when, on June 10, the House of Delegates passed two important resolutions. One of these was addressed to all county medical societies, requesting each of them to hold at least one open meeting each year, to which the public should be invited as active participants and which should be devoted to the consideration of public-health problems. The execution of this resolution rests with the Bureau of Medical Legislation and an active campaign will be at once inaugurated for the purpose of carrying out its purpose. The other resolution was one requesting the women physicians, members of the American Medical Association, to institute and conduct a similar campaign through the avenue of the women's clubs, mothers' associations and similar organizations. The fact that the execution of this resolution has been placed in the hands of an influential committee under the chairmanship of Dr. Rosalie Slaughter Morton, of New York, and of which Dr. Lillian K. South, of Kentucky, is one of the other officers, is a presage of large and beneficial results.

PARALYSIS OF THE LEFT RECURRENT LARYNGEAL NERVE DUE TO MITRAL STENOSIS

The change of voice and production of the so-called "brassy" or "goose" cough dependent on paralysis of the left recurrent laryngeal nerve is usually attributed to the pressure of a thoracic tumor. Indeed, such an adductor paralysis has been considered almost pathognomonic of aortic aneurism, particularly if associated with cyanosis and attacks of dyspnea. But other tumors in the mediastinum may cause similar pressure palsies of this nerve. Among other causes now recognized may be mentioned atheroma of the aorta, tuberculosis of the apex of the lung, thickened pleura in the same region, and calcified peribronchial glands. Osler has recently laid stress on paralysis of the left recurrent laryngeal nerve in cases of mitral stenosis. The confusion possible with thoracic aneurism can be imagined when the picture is known to include paroxysms of dyspnea, cyanosis, the "cracked" voice, and a paralysis of the vocal cord shown by the laryngoscope, together with a visible pulsation in the second left intercostal space close to the sternum. Ortner was the first to point these facts out. His first case of laryngeal paralysis and unequal carotid pulses was shown at autopsy to have a mitral stenosis and compression of the left recurrent nerve between the aorta and a considerably dilated left auricle. This compression has been found in other cases to be due to enlarged pulmonary veins, and in Fischauer's case to the left branch of the pulmonary artery. Of course, such a paralysis as that which occurs in diphtheria must be ruled out. One of Osler's patients gave a history of diphtheria, but the diagnosis was made clear by the fact that the change in voice antedated the diphtheria. The importance of keeping in mind mitral stenosis as a possible cause of laryngeal paralysis must be emphasized. The first of Osler's cases was diagnosed as aneurism plus a mitral lesion by no less an authority than the late Professor Nothnagel.

THE CARROLL FUND COMPLETED

It will gratify all to learn of the completion of the fund for a home for the wife of Major Carroll of yellow-fever fame. Major Ireland, of the medical corps of the Army, who so kindly assumed charge of the receiving of remittances, announces that the contributions now in his hands are sufficient to pay off the entire indebtedness on the property and leave a small balance. Further contributions for this fund are, therefore, unnecessary. The committee is to be congratulated on the able and rapid manner in which it has raised this amount, and the profession at large, and others, are to be thanked for the manner in which they generously and promptly responded to the appeal for contributions. The success of this undertaking is an evidence of the honor and esteem in which Dr. Carroll's memory is held for his self-sacrifice which led indirectly to his fatal affliction. In suffering himself to be bitten by yellow-fever mosquitoes as one of the necessary steps in solving the problem of that disease, Dr. Carroll merely followed what seemed to him to be in the line of duty. But history inscribes his name among the heroes and martyrs, and enrolls among his debtors not only his profession and science, but also commerce, his nation and the whole world.

MEETING OF THE NORTHWEST MEDICAL SOCIETIES

The fact that all roads in the Northwest lead to Seattle because of the Alaska-Yukon-Pacific Exposition has facilitated the arrangement of a notable medical convention there. The medical associations of British Columbia, Idaho, Washington and Oregon are all to be concentrated in Seattle, July 20-23. In the order named, these are the tenth, seventeenth, twentieth and thirty-fifth annual meetings of these bodies. Part of the programs naturally are separate, and part are united.

We congratulate the northwest physicians on their taking advantage of this opportunity and hope that a most pleasant and profitable session will result.

Blood and Thunder.—Last Thursday was the one-hundred and thirty-fourth anniversary of the Battle of Bunker Hill. It was celebrated so vigorously in Boston that 119 persons were treated in Boston hospitals for injuries received from fireworks at the celebration. This, however, is but a prelude and a sample of what will happen on next Fourth of July. Criminal penalties and civil suits for damages should follow such destructive patriotism.—*Christian Advocate*, N. Y., June 24.

Medical News

MAINE

Graduation.—At the annual graduation exercises of the Medical School of Maine, Brunswick, a class of 19 was graduated.

Personal.—Dr. Edwin A. Porter has been appointed U. S. pension examining surgeon at Skowhegan.——Dr. Garcelon has been elected chairman of the Lewiston Board of Health.——Drs. Franklin A. Ferguson, Byron F. Barker, Robert H. Donnell and Langdon T. Snipe compose the new attending staff of the Bath Hospital.——Dr. Jacob L. Horr has been elected chairman of the Westbrook Board of Health.

Medical Society Meetings.—The fifty-seventh annual session of the Maine Medical Association was held in Portland June 16 and 17. The following officers were elected: President, Dr. Galen M. Woodcock, Bangor; vice-presidents, Drs. Stanley P. Warren, Portland, and Stephen E. Webber, Calais; secretary, Dr. W. Bean Moulton, Portland; treasurer, Dr. Edwin W. Gehring, Portland; delegate to the American Medical Association, Dr. Alfred D. Sawyer, Fort Fairfield; necrologist, Dr. James A. Spalding, Portland; and councilors: First district, Dr. George B. Swasey, Portland; second district, Dr. Herman L. Bartlett, Norway; third district, Dr. George H. Coombs, Waldoboun; fourth district, Dr. George R. Campbell, Augusta; fifth district, Dr. Eben H. Bennett, Lubec, and sixth district, Dr. Ralph H. Marsh, Guilford.——At the meeting of Kennebec County Medical Association, held in Waterville May 26, the standard constitution and by-laws was adopted.——At the annual meeting of Aroostook County Medical Society, held in Houlton, June 1, the following officers were elected: President, Dr. Sherman W. Boone, Presque Isle; vice-president, Dr. Charles E. Thomas, Caribou; secretary, Dr. Frank H. Jackson, Houlton; treasurer, Dr. Wiley E. Sincock, Caribou, and censors, Drs. Charles E. Thomas, Caribou, Frank Kilburn, Presque Isle, and Francis O. Hill, Monticello.

MARYLAND

Baltimore

Released.—After serving eight years and four months of a ten years' sentence, Dr. George C. Worthington, convicted of manslaughter in 1900, for alleged illegal operation, has been released from the Maryland Penitentiary.

Fund for Physicians' Widows.—Wives of physicians of Baltimore met June 4, at the building of the Medical and Chirurgical Faculty of Maryland and discussed plans for raising a fund to aid the widows and orphans of physicians. Dr. Eugene F. Cordell described the work undertaken and emphasized the urgency of the need. It is planned to buy a country home in the suburbs and to raise a fund of about $100,000.

MASSACHUSETTS

State Society Election.—At the one hundred and twenty-eighth annual meeting of the Massachusetts Medical Society, held in Boston June 15 and 16, the following officers were elected: Dr. Silas D. Presbrey, Taunton, president (re-elected); Dr. Joseph G. Pinkham, Lynn, vice-president; Dr. Walter L. Burrage, Boston, secretary, vice Dr. Francis W. Goss, Boston, who had served as secretary for thirty-four years and declined re-election; Dr. Edward M. Buckingham, Boston, treasurer (re-elected), and Dr. Edwin H. Brigham, Boston, librarian (re-elected). A report of the proceedings will appear in THE JOURNAL.

NEW JERSEY

Against Tuberculosis.—At the annual meeting of the State Association for the Prevention and Relief of Tuberculosis, held in Newark May 20, the following physicians were elected officers: President, Dr. Gordon K. Dickinson, Jersey City; vice-presidents, Drs. William Gray Schauffler, Lakewood, and William H. Murray, Plainfield; executive committee, Drs. Gordon K. Dickinson, Jersey City; William H. Murray, Plainfield; Benjamin Van D. Hedges, Plainfield, James A. Exton, Arlington, and Theodore W. Corwin, Newark; directors, Drs. Philip Marvel, Atlantic City; George B. Philhower, Nutley; William E. Ramsey, Perth Amboy, and Addison B. Poland, Newark.

Personal.—Dr. John W. Wade has been elected president and Dr. H. Garrett Miller, vice-president, of the Millville board of health.——Lieutenant Colonel William G. Schauffler, Lakewood, medical inspector N. G. N. J., has been appointed aide-de-camp on the staff of the governor.——Dr. Henry O. Carhart, Blairstown, collector of Warren county, was seriously injured in a runaway accident near Blairstown, June 18.——Dr. J. Wellington Crane, Newark, has been appointed prison physician, vice Dr. Samuel F. Stanger, deceased.——Dr. Herman C. H. Herold, president of the board of health of Newark, and internal revenue collector, is reported to be seriously ill at his home.

NEW YORK

Personal.—Dr. Willis G. McDonald, Albany, has been made a member of the State Board of Medical Examiners, and Dr. William S. Ely, Rochester, has been reappointed a member of the board.

Alumni Election.—The Alumni Association of Syracuse College of Medicine held its annual dinner and election June 7. Dr. Frederick Flaherty, Syracuse, was elected president; Dr. Alfred W. Armstrong, Canandaigua, vice-president; Dr. William D. Alsever, Syracuse, secretary, and Dr. A. Clifford Mercer, Syracuse, treasurer.

Blackwell Society Election.—The Blackwell Medical Society, Rochester, held its annual meeting in Williamson, June 17, the guests of Dr. Anna Lapp, and the following officers were elected: Dr. M. May Allen, president; Dr. Kathleen L. Buck, vice-president; Dr. May Nickerson, secretary; Dr. Ida M. Porter, treasurer, and Drs. Evelyn Baldwin and Cornelia White-Thomas, councilors.

Sanatorium for Brookhaven.—Dr. Eugene H. Porter, State Commissioner of Health, has given his approval to the application of the committee on tuberculosis of the Brooklyn Central Labor Union for permission to establish a camp and sanatorium for the treatment of tuberculosis in Brookhaven. This is the first application passed upon since the enactment of the new law providing that state instead of local authorities shall pass upon these applications. The local authorities last year refused to permit the establishment of this institution.

Tuberculosis Sanatoria Opposed.—A hearing was held recently before Dr. Eugene H. Porter in Patchogue, L. I., on the proposal to establish a tuberculosis sanatorium near Medford. Certain citizens of Brookhaven vehemently oppose the plan to erect a sanitarium in their neighborhood. Two years ago an application was made for such an institution, but had to be withdrawn because of public clamor. It is believed that Dr. Porter will not withhold his consent if adequate financial support is assured.——It is rumored that the question of the appropriation of $1,000,000 for the proposed tuberculosis hospital in Richmond, Staten Island, has become a political issue, and will figure largely in the coming election of a Borough president.

New York City

Leaves Estate to Hospital.—The will of Edward O. Kindberg leaves his estate, valued at more than $50,000, to the Presbyterian Hospital.

Anesthetist Wanted.—The Medical Board of St. John's Hospital, Brooklyn, announces that the position of visiting anesthetist is vacant. Applications for this position should be addressed to Frank Henry Knight, Secretary of the Medical Board, Albany and Atlantic avenues.

Ferry Boat for Tuberculosis Fight.—Miss Mary Harriman has presented one of the Erie ferry boats to the Brooklyn Committee on the Prevention of Tuberculosis and the Brooklyn Red Cross Society. Attendants and physicians will be provided for the boat, which will be used as a day camp for tuberculosis patients.

Commencement.—The first annual commencement exercises of Fordham University School of Medicine were held June 9, when a class of 11 was graduated. The rectorial address was given by Rev. Daniel S. Quinn, S. J., president of the university, and the address to the graduates was made by Dr. James J. Walsh, dean of the school.

Post-Graduate School Profits by Hewitt Will.—The will of Frederic Charles Hewitt of Owego has been admitted to probate and according to its terms, the Post-Graduate Medical School and Hospital will receive $2,000,000, and the Free Industrial School for Crippled Children and the Sheltering Arms Society of New York will each receive $200,000.

Personal.—Drs. Henry W. Frauenthal, Arthur R. Green and Francis Delafield have sailed for Europe.——Dr. Walter Bensel has been appointed by President Taft to be first lieutenant in the medical reserve corps of the United States Army.——Dr. William H. Park has been appointed a member of the Board of State Medical Examiners to succeed Dr. Floyd M. Crandall.

East Side Tuberculosis Exhibition.—This exhibition is being held at the Educational Alliance, East Broadway and Jefferson street, and will continue until July 1. Isador Straus presided at the opening meeting, and Commissioner Robert

W. Hebberd of the Department of Charities and Dr. Samuel A. Knopf spoke. Both Yiddish and English lectures have been arranged for every evening.

Asks Children to Make Less Noise.—William H. Maxwell, superintendent of schools, has written a letter which he has asked the principals of the various schools to read to the chilren, asking that during vacation they refrain from making noise near hospitals or houses where they know someone is sick, and asking especially that they should not explode any fireworks near a hospital on the Fourth of July.

Board of Ambulance Service Named.—Mayor McClellan has appointed Nathan Bijur and Harold Pratt as the two citizen members of the new Board of Ambulance Service which was authorized by the last legislature to provide new regulations for the control of the ambulance service of this city. The other members of the board are the police commissioner, the commissioner of charities and the president of the board of trustees of Bellevue and Allied hospitals.

Open Convalescent Home.—The Children's Aid Society has just opened the Chappaqua Convalescent Home in Westchester county, with accommodation for 200 crippled children. This institution was made possible by the gift of $500,000 by Mrs. A. A. Anderson. The mothers are also taken where it is not advisable to separate the children from them. The same society has also opened a new ward in the Coney Island Health Home. Last year 985 women and 2,173 children were cared for at this institution.

Hospital Alumni Elections.—The Alumni Society of the New York Skin and Cancer Hospital has elected the following officers: President, Dr. Jerome Kingsbury; vice-presidents, Meara, professor of therapeutics and clinical medicine; Dr. Fred Wise, and treasurer, Dr. H. A. Pulsford.——The Society of Ex-Internes of the Jewish Hospital, Brooklyn, was recently organized and the following officers were elected: President, Dr. William F. Bozenhardt; vice-president, Dr. August G. Horstman; secretary, Dr. Joshua Ronsheim, and treasurer, Dr. William Lintz.

New Professors Announced.—At the June meeting of the Cornell Board of Trustees, the following faculty appointments were made for the medical department: Dr. Frank Sherman Meara, professor of therapeutics and clinical medicine; Dr. Charles N. B. Camac, professor of clinical medicine; Dr. William J. Elser, professor of bacteriology; Dr. John A. Hartwell, professor of clinical surgery; Dr. William B. Coley, professor of clinical surgery; Dr. Silas P. Beebe, assistant professor of experimental therapeutics, and Dr. John R. Murlin, assistant professor of physiology.

Work Among the Crippled.—The People's University Extension Society carried on twenty-three classes for the physical training of crippled children last year with an enrolment of over 350 pupils, and 96 free classes in manual and domestic training had an enrolment of about 900 crippled children. There were also 24 free classes for mentally defective children. Crippled and blind men and women from 60 to 80 years old were members of some of the adult classes. The annual report of the society gives details of more than 1,100 classes, having an enrolment of about 19,000 pupils.

Fighting Sale of Cocain.—William J. Schiefflin, president of Schiefflin & Co., wholesale chemists, warmly endorses the stand taken by Commissioner Bingham in urging on the chairman of the Senate Finance Committee the importance of placing a prohibitive tariff on cocain. In his letter to the Finance Committee, Commissioner Bingham states that there are at least 63 drug stores in this city which are suspected of carrying on the illicit sale of cocain. A prohibitory tariff would confine the sales to the American producer. With these measures the sale of cocain in the United States would be cut in half, the abuse of the drug would be checked and the hands of the druggist would be clean.——A druggist recently arrested by Board of Health detectives on the charge of selling cocain, pleaded guilty, and was sentenced to imprisonment for one year in the pentitentiary.

NORTH CAROLINA

Pellagra.—Drs. Robert H. Bellamy and Edward J. Wood, Wilmington, are doing extensive work in the investigation of pellagra. They have found 17 cases of the disease in New Hanover county.

Hospital Dedicated.—The Episcopal bishop of North Carolina formally dedicated at Raleigh on May 26, the new St. Agnes Hospital for Colored Patients. It is a substantially built structure of modern type, with accommodation for sixty patients.——The cornerstone of the Thompson Sanatorium, Troy, was laid with proper ceremonies, May 27.

State Society Election.—At the fifty-sixth annual meeting of the Medical Society of the State of North Carolina in Asheville, June 15-17, the following officers were elected: President, Dr. James A. Burroughs, Asheville; vice-presidents, Drs. Edward J. Wood, Wilmington; John Q. Myers, North Wilkesboro, and Lacy D. Wharton, Smithfield; secretary, Dr. David A. Stanton, High Point (re-elected); treasurer, Dr. Herbert D. Walker, Elizabeth City; orator, Dr. Cyrus Thompson, Jacksonville; essayist, Dr. R. V. Walker, Salisbury; delegate to the American Medical Association, Dr. Thomas E. W. Brown, Asheville, and alternate, Dr. James V. McGougan, Fayetteville. Wrightsville Beach was chosen as placee of meeting for 1910.

OHIO

Victims of the Law.—For selling drugs without being a registered pharmacist, J. A. Vincent, Cleveland, is said to have been fined $20 each on four counts, the State Board of Pharmacists conducting the prosecution.——G. T. Dimm, Fostoria, found guilty of practicing medicine without a license, is said to have been sentenced to imprisonment for ninety days in the Seneca county jail, and to pay a fine of $50 and costs, June 2. The jury recommended that the sentence be suspended so long as the defendant refrained from practice.——In the case of Dr. Norman M. Geer, Cleveland, said to have been sentenced to four years' imprisonment in the penitentiary on the charge of performing an illegal operation, the circuit court reversed the decision of the lower court and the defendant was released from jail. An attempt will, it is said, be made to retry the defendant.

Cincinnati

The Eichberg Fund.—Dr. Nathaniel P. Dandridge has reported to the Cincinnati Academy of Medicine that the Joseph Eichberg fund for the establishment of a memorial chair of physiology in the medical department of the University of Cincinnati, now amounts to $45,000. Before the actual acceptance and transfer of this money can take place, it will be necessary for the academy to become an incorporated body.

PENNSYLVANIA

New State Antitoxin Stations.—The state health commissioner has established a number of new antitoxin stations. This addition increases the number of distributing stations in the state to 633.

State Medical Examinations.—The annual spring examinations of the State Medical Examining Board were held in Philadelphia and Pittsburg, June 22-25. There were 270 men examined in Philadelphia and about one-third that number in Pittsburg.

Railroad Casualties.—According to statistics compiled by the State Railroad Commission, the forty-four street railways in the state, during the quarter ended March 31, killed 37 persons and injured 765 others. Six of the killed and 56 of the injured were children not more than 15 years. The greatest number of persons killed was in Philadelphia. The highest number of injuries was on the Pittsburg company's lines, the non-fatal accidents being 311.

Hospitals and Sanatoria.—The state department of health has opened a dispensary for tuberculosis at Wilkinsburg, in charge of Dr. James M. McNall. The dispensary will furnish free medical treatment and advice to poor tuberculosis patients of Allegheny county, and they will be supplied with fresh eggs and milk daily.——Hazelton Society for the Prevention of Tuberculosis has begun negotiations for the acquisition of five acres of ground near the State Hospital, on which to erect a sanatorium.——The contract for the erection of a group of buildings at South Mountain Sanatorium, Mount Alto, has been awarded for about $50,000.——The cornerstone of the Philadelphia Jewish Sanatorium for Consumptives, Eagleville, was laid with appropriate ceremonies June 13. The site is about four miles north of Valley Forge and contains seventy acres. The proposed plans include a mess hall 30x80 feet, an infirmary of the same dimensions, four shacks each 16x40 feet and two sun parlors, each 16x75 feet. The institution will cost about $50,000, and will accommodate 150 patients.——The cornerstone of the Mid-Valley Hospital, Blakely, was laid May 31. The main building of the hospital is to be 65x106 feet and a ward building on either side 39x85 feet. The hospital will accommodate 41 patients.

Philadelphia

Personal.—Dr. John S. Sharp has been appointed visiting physician to the Bryn Mawr Hospital.——Drs. Morris Longstreth, William G. Moore and George F. Nickerson have sailed for Europe.

Contagious Hospital Receives Patients.—The first transfer of patients from the old Municipal Hospital to the new institution was effected June 25, when the scarlet fever patients, numbering 181, were taken to the new building. The remainder of the inmates of the old hospital have now been removed to the new institution.

Heat Mortality.—Philadelphia was one of the hottest cities in the United States during the past week, the maximum daily temperature ranging from 90 to 94. June 21-26 is recorded as the hottest period between those dates in the history of the local weather bureau. Deaths from the heat up to midnight June 26, aggregated 22.

Hospital Buys Site.—The Pennsylvania Hospital has purchased the property at 724 Spruce street for about $20,000. The property is on a lot 24 feet 9 inches by 250 feet. The Pennsylvania Hospital now owns all but one piece of property in the block opposite to its present buildings, and when the growth of the institution demands it, the site will be utilized as annexes to the hospital.

Bequests.—The will of the late Mrs. Julia Grey Dayton contains a bequest of $7,000 to the Hospital of the University of Pennsylvania, to endow a free bed in the surgical department as a memorial to her husband, William C. Dayton.——The will of the late William J. McAllister bequeaths $10,000 to the Orange Home of Hatboro, Pa., $3,000 to the Presbyterian Hospital, and $5,200 to the Presbyterian Hospital to endow a free bed to be known as the William J. McAllister bed.

WASHINGTON

New Medical Board.—The newly organized State Board of Medical Examiners met for organization June 1, and elected the following officers: President, Dr. Frank P. Witter, Spokane; vice-president, Dr. Edward J. Taggart, Bremerton; secretary, J. Clinton McFadden, Seattle; and treasurer, Dr. George H. Dow, Chehalis.

New Marriage Statute.—Under the provisions of the new marriage laws which went into effect June 10, issuance of marriage licenses is prohibited to persons suffering from tuberculosis in advanced stages, or from several other contagious diseases, and to habitual criminals and drunkards. The law provides that applicants must undergo medical examination, excepting where the woman is 45 years of age or over.

GENERAL NEWS AND COMMENT

Hospital Authorities to Meet.—The eleventh annual conference of the American Hospital Association will be held in Washington, September 21-24.

Spanish Edition of Pharmacopeia.—The Spanish edition of the United States Pharmacopeia, to which reference has been made elsewhere, will be sold at retail at the following prices, fixed by its Board of Trustees: for the cloth binding, $5; cloth binding, interleaved, $6; sheep binding, $5.50; sheep binding, interleaved, $6.50; flexible leather binding, $6. Erroneous prices have been given by some other publications; the above are official.

Inspection of Viruses.—Radical changes in the regulation governing the sales of viruses, serums and toxins, and analogous products, have been made by a board, consisting of the surgeons general of the Army, Navy and Public Health and Marine-Hospital Service. Under the new regulation, an unannounced inspection is to be made at least once a year of all establishments making serums and viruses, and licenses are to be issued only after inspection and examination of the products.

Protection of Public Health.—Application has been made for a certificate of incorporation for the National Association for the Protection of Public Health, whose objects are to promote among the people of the United States a better understanding of the laws of health and sanitation, to disseminate proper and accurate information to this end in order that the national health shall be improved without referring to any special interests that may be damaged thereby. The directors of the association are Dr. Henry W. Frauenthal, Campbell MacCulloch and Dr. William R. Hitchcock, all of New York City.

Personal.—Medical Director John C. Wise, U. S. Navy, sailed for Europe, June 19, as representative of the government to the International Antituberculer Congress at Stockholm, July 8-10, to the International Scientific Congress on Leprosy at Bergen, August 16-19, and to the International Medical Congress, Budapest.——Surgeon Frank L. Pleadwell, U. S. Navy, sailed for Europe June 19, and will represent the government at the second International Conference for the Revision of Nomenclature of Diseases and Causes of Death, at Paris, July 1-3, and at the twelfth International Congress on Alcoholism to be held in London July 18-24.——The degree of D.Sc. has been conferred by Brown University on Col. William C. Gorgas, Medical Department, U. S. Army, chief sanitary officer of the Canal Zone.

Elections.—At the twelfth annual meeting of the Association of the Medical Officers of the Army and Navy of the Confederacy, held in Memphis, June 9, 10 and 11, Dr. Gustavus B. Thornton, Memphis, was elected president, and Dr. Edwin D. Newton, Atlanta, Ga., secretary. The association will meet next year in Mobile, Ala.——At the fifth annual meeting of Atlantic Coast Line Railway Surgeons, held in Wilmington, N. C., the following officers were elected: President, Dr. James H. Pittman, Jacksonville, Fla.; vice-presidents, Drs. William H. H. Cobb, Goldsboro, N. C., Alexander M. Brailsford, Mullins, S. C., and John M. Spence, Camilla, Ga., and secretary-treasurer, Dr. Charles P. Aimar, Charleston, S. C. (re-elected).——On the occasion of the fourth annual meeting of the New England Alumni Association of the Baltimore Medical College, held in Boston, June 16, the following officers were elected: President, Dr. Henry J. Keaney, Everett, Mass.; vice-president, Dr. Thomas J. Dougherty, Somersworth, N. H.; state vice-president, Drs. Lawrence E. Willard, Saco, Maine; William E. Lawrence, North Haverhill, N. H.; E. R. Lynch, Brattleboro, Vt.; James F. Cuddy, Athol, Mass.; C. B. O'Rourke, Providence, R. I.; and George M. Burroughs, Danielson, Conn.; secretary, Dr. Charles S. Gilman, Boston, and treasurer, Dr. Thomas B. Alexander, Scituate Harbor, Mass.

Physicians of Northwest to Meet.—The first meeting of the Medical Associations of the Pacific Northwest, which includes those of British Columbia, Idaho, Oregon and Washington, will be held in Broadway High School, Seattle, July 20-23. At this time the tenth annual meeting of the British Columbia Medical Association, the seventeenth annual meeting of the Idaho State Medical Association, the twentieth annual meeting of the Washington State Medical Association, and the thirty-fifth annual meeting of the Oregon State Medical Association will be held. July 21 has been set aside as medical day at the Alaska-Yukon-Pacific Exposition, and on the 22d an excursion to the Navy Yard at Bremerton has been arranged for. The wives of the visiting physicians will be entertained by the King County Medical Society and the Medical Women's Club. On the first day executive sessions will be held by the various component associations. In the afternoon there will be a general session, over which Dr. Clarence A. Smith, Seattle, will preside. Addresses of welcome will be made by Hon. M. A. Hay, governor of Washington, and Hon. John F. Miller, mayor of Seattle. Responses will be given by Dr. Simeon E. Josephi, Portland, on behalf of Oregon; by Dr. R. Eden Walker, New Westminster, on behalf of British Columbia; by Dr. R. L. McCalla, Boise, on behalf of Idaho, and by Dr. Wilson Johnston, Spokane, on behalf of Washington. Addresses will follow by Dr. James B. Herrick, Chicago, on "General Infections and Metastatic Lesions Due to Gonococci;" by Dr. Roswell Park, Buffalo, N. Y., on the "Relation of Internal Secretions to Surgical Diseases," and by Hon. A. W. Frater, Seattle, on the "State Care of the Insane." On the first afternoon, the secretaries of the county societies will meet. A general session on "Tuberculosis" will be held on the afternoon of July 22, under the auspices of the Washington Association for the Prevention and Relief of Tuberculosis, and one in the evening on "Public Health and Sanitation," under the auspices of the Pacific Coast Public Health Association. The work of the component associations will be undertaken in four sections—surgery, medicine, ophthalmology and otolaryngology, and urology.

The Carroll Fund Completed.—It is a pleasure to announce the raising of the amount which was needed to complete the payment of the mortgage, interest, taxes, etc., on the house which Major Carroll purchased for his family shortly before his death. Lists of contributions have been published from time to time in THE JOURNAL since April 1, when the committee began its work. The receipt of these funds has been under the charge of Major M. W. Ireland of the Surgeon-General's office of the War Department, Washington, D. C. The following contributions have not been previously acknowledged:

Medical Officers, U. S. Army	$ 10.00
Houghton County Medical Society, Calumet, Mich.	10.00
State Medical Association of Texas	100.00
Santa Barbara County Medical Society, Cal.	8.00
Dr. Hermann G. Klotz, New York City	3.00
Orleans Parish Medical Society, New Orleans, La., et al.	1,248.50

Contributed as follows:

Visiting Staff of Touro Infirmary	$160.00
Physicians other than Touro Infirmary	250.00
United Fruit Company	100.00
New Orleans Progressive Union	50.00
S. Pfeiffer & Co.	10.00
R. B. Scudder & Co.	5.00
New Orleans Picayune	25.00

New Orleans Furniture Manufacturing Co.	5.00
A. B. Griswold & Co.	10.00
Vaccaro Bros. & Co.	25.00
"X"	1.00
James J. Reiss Company	5.00
Seaboard Refining Company	5.00
"M.D."	2.00
I. L. Lyons & Co.	10.00
Leon Godchaux Clothing Co.	2.00
"Cash"	1.00
New Orleans Cotton Exchange	165.00
R. F. Glover & Son	25.00
Smith Brothers Co.	10.00
A. M. & J. Solari	5.00
Bluefields Steamship Co.	25.00
Penick & Ford Co., Ltd.	10.00
Isidore Newman & Son	25.00
D. H. Holmes Co.	10.00
J. B. Camors	10.00
H. Guenard	2.00
S. A. Cosulich	5.00
A. K. Miller & Co.	5.00
National Rice Milling Co.	10.00
W. G. Coyle & Co.	10.00
W. W. Carre Co.	5.00
Buddock Cypress Co.	10.00
E. C. Palmer & Co.	25.00
Stauffer, Eshleman & Co.	10.00
Louisiana Bankers Association	100.00
New Orleans Railway & Light Co.	10.00
Louisiana Glass & Mirror Works	5.00
Southern Pacific Co. (Atlantic Steamship Line)	100.00
Sixty-fifth Regiment, N. G. N. Y., Buffalo, N. Y.	50.00
Coos and Curry County Medical Society of Oregon, Marshfield, Oregon	10.00
Dr. Seldom R. Overlock, Pomfret, Conn.	2.00
Dr. Nathan Mayer, Hartford, Conn.	1.00
R. McKee, San Francisco	5.00
Dr. Frank K. Hallock, Cromwell, Conn.	5.00
Total	$1,452.50

FOREIGN

The Fifth International Congress for Obstetrics and Gynecology.—The Russians are again making an effort to hold this international gathering in their land, the authorities having given their consent and approval to invite the congress to meet at St. Petersburg in September, 1910. The last congress had been invited there, but conditions were too unsettled at the time appointed and the congress was held elsewhere.

Compulsory Education in Spain.—The Spanish parliament has recently passed a law making education compulsory for children, with penalties for parents who do not send their children to school, and disqualifying all who do not learn to read and write from participation in state privileges which others enjoy. The *Siglo Medico* comments joyfully that this bill was introduced and its adoption secured by a member of the medical profession, C. M. Cortezo, who is a senator and one of the three editors of our esteemed Madrid exchange.

Recent Honors in Memory of Members of the Profession.—A memorial to Kussmaul was unveiled at Freiburg, May 15, with much ceremony, and our German exchanges of the first week in June contain views of the bust that surmounts the shaft and the allegorical figure on the base representing the art of healing. A tablet to Auenbrugger, the "father of percussion," has also recently been installed at Vienna, and a large statue of Pettenkofer unveiled at Munich. A memorial to Mikulicz was also unveiled at Breslau, May 27; it stands in front of the clinic he made famous, and the address was delivered by his successor, H. Küttner. In Madrid, also, a tablet was installed in the Colegio de Medicos the same week, to the memory of F. G. Roel, noted in connection with the first description of pellagra. His will is said to be such an interesting document that the Academy of Medicine is to republish it shortly.

The Daniels Souvenir Number of Janus.—The current issue of *Janus* is dedicated to C. E. Daniels, of Amsterdam, on his seventieth birthday. He was one of the four founders, in 1896, of *Janus*, the international archives for the history of medicine and medical geography, and has contributed many articles on the history of medicine, besides founding the medico-pharmaceutic museum at Amsterdam which has attracted so much attention. Daniels has been prominent in the organization of the profession in Holland, serving in various capacities and as chief of the information bureau for medical positions and for the museum of colonial medicine. The souvenir number contains over 250 pages and 20 articles on various historical subjects, including one by D'Arcy Power on "The Fees of Our Ancestors," and another by E. T. Withington on "John Locke as a Medical Practitioner," which states that Locke is the most celebrated man that ever belonged to the medical profession in Great Britain. Another communication cites the Sinclair Letters to the effect that the inventor of the balloon, Montgolfier, gave the credit for his invention to the Scotch chemist, Joseph Black, 1728-1799.

First Russian Congress of Factory Physicians.—This congress was held at Moscow in April, with a large attendance of physicians, manufacturers and delegates from working men's organizations. Among the questions discussed was the advisability of medical examination of the workman when first entering the factory, with a uniform card catalog of the findings; this is in the interests of the workman, to warn him and instruct him in prophylactic measures, and also to collect data for statistics. The labor representatives protested against this measure unless the medical examiner was a state official and not dependent on the manufacturer. The chief topic of interest was cholera, which Bronstein stated is permanently endemic, and "truly deserves the name of Russian cholera." The consensus of opinion was that serotherapy had proved disappointing, and, as there is no specific, palliative measures are the only reliance in treatment, but protective inoculations have demonstrated their efficiency and harmlessness, and were urgently recommended by a number of the medical and other speakers. The cholera germs are found not only in the stool of the patients, but in the blood, bile and urine. Bacteriologic diagnosis is especially necessary in suspicious cases when there is no epidemic prevailing, in atypical affections, and in the convalescents to complete bacteriologic recovery. One speaker stated that protecting serum inoculations reduced the number of cases of cholera to one-fifth. In some of the epidemics all the patients died at first, but later the mortality averaged 42 per cent. An important palliative measure is to keep the patients warm. The full report of the congress is in the *St. Petersburg. med. Wochenschrift*, June 5.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, June 12, 1909.

Fifty Years of Social Progress

The Local Government Board has issued a useful "blue-book" to illustrate in a convenient and readily intelligible form various important matters in the study of social conditions, such as the growth of population, mortality, and public health administration, the changes in the occupation of the people, the recurring periods of industrial prosperity and depression, pauperism and the action of the poor law, local taxation and local debt. While each subject is dealt with as briefly as possible a very complete survey is given of the period covered. By the free use of charts the various movements are shown graphically and the meaning of the huge masses of figures rendered rapidly intelligible. The work is so important that it must become a standard book of reference for all interested in social questions. Indeed it may be doubted if ever such an important body of figures and other information was ever brought together within a moderate compass before. Among the most salient facts of medical interest are the following. The population of the United Kingdom in the middle of 1908 was estimated at 44,500,000; in 1901 it was 41,500,000; in 1851 27,000,000. Thus in the half century between the last two dates the population increased by 51.5 per cent. In the last three decades the number of births in proportion to the population has been decreasing but the number of deaths has also declined though not in the same proportion. The net result is that the annual increase of population shows a slight diminution. In the period 1851-55 the average annual birth rate was 33.9 per 1,000 and the death rate 22.7. The former has steadily fallen to 26.3 in 1907 and the latter to 11.3. This decline of the birth rate is common to most European countries and the curve in this country almost exactly follows that in France and fairly closely that in Prussia and Belgium. The tendency of the population to aggregate in urban areas is shown by the fact that while in 1851 it was almost equally divided between urban and rural areas, in 1901 77 per cent. was urban. The mortality of the rural districts is about 23 per cent. lower than that of the urban districts. With regard to the causes of death the mortality from nearly all the principal diseases has decreased materially in the last 30 years. The most important exceptions are pneumonia, diphtheria, and cancer. Typhoid fever has greatly declined and typhus fever and smallpox have almost completely died out. Scarlet fever also shows a persistently downward curve, while phthisis has steadily diminished.

The Radium Treatment of Cancer

With the foundation of the Radium Institute the eyes of the profession are naturally turned towards the radium treatment of cancer. The lead taken by the French both in the discovery and in the therapeutic use of radium has made them for the time our teachers. The newly-appointed director

of the Radium Institute, Captain Pinch, F.R.C.S., has returned from Paris where he has been studying the methods of the radium institute in that city. Its director, Dr. Louis Wickham, has delivered before the dermatologic section of the Royal Society of Medicine a brilliant address on "The Therapeutic Application of Radium to Cancerous and Other Tumors." The address, which was delivered in English, was listened to with great interest and was illustrated by lantern slides. He first showed the destructive power of radium on the tissues by paired pictures of pigmentary and vascular nevi and rodent ulcer. But his main subject was not the destructive power of radium but its apparently specific power of affecting certain diseased tissues without affecting normal tissues. This action had been demonstrated with regard to four conditions—eczema, angioma, keloid and cancer. Its application would arrest such morbid processes, such as deep cancers, without injuring the superficial tissues. But its successful application depended on overcoming great difficulties in estimating accurately the dosage.

Presentation to Mr. Lynn Thomas and Mr. H. Skryme

The occasion of the presentation at Cardiff to Mr. Lynn Thomas and Mr. Skryme of a fund subscribed to defray the heavy costs to which they had been put in consequence of a patient recovering damages from them, principally because they had treated a fracture on lines not laid down in the text-books—without applying a splint—was a remarkable professional function. The case has been fully narrated in previous letters. It was appropriately arranged that the distinguished French surgeon, M. Lucas-Championnière, who is the apostle of the modern treatment of fractures by massage and mobilization and of the discarding of splints should make the presentation. To a crowded meeting of the Cardiff Medical Society he delivered an address on "The Modern Treatment of Fractures," a subject peculiarly his own. The great interest taken in the function was natural. The occasion was felt by the profession to be important for it was vindication of its right of freedom of thought and action.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, June 10, 1909.

Comparative Statistics of Population in France in 1908

From the official statistics of the population which have just been published by the ministry of labor, it appears that the situation of France in regard to population has appreciably improved during the last year. In 1907 the number of deaths was 19,920 more than the number of births (THE JOURNAL, Oct. 17, 1908, li, 1346). In 1908, on the other hand, an excess of 46,411 births over deaths is reported. This figure is appreciably larger than that of the five-year period from 1902 to 1907, in which the annual average excess of births over deaths was 34,802, but one must acknowledge that it is mainly to a great diminution of the number of deaths that the excess of births during the year 1908 is due. The number of deaths, in fact, was less by 48,266 than the corresponding number in 1907, while from the one year to the other, the number of births has increased only by 18,067. In 1908 there were 791,712 births in place of 773,645 in 1907. In spite of the slight increase of births recorded last year, the years 1907 and 1908 are the only ones since the beginning of the nineteenth century which have furnished fewer than 800,000 infants born alive. The number of births registered in 1908 remains less by 15,135 than the corresponding figure of 1906, and less by 48,131 than the annual average of the decennial period 1896 to 1905.

As for the number of deaths, it continues to decrease, thanks to the progress of hygiene and to the spread of comfort and well-being. There were recorded last year 745,271 deaths, a figure less by 31,108 than the annual average of the decennial period 1896 to 1905. The number of deaths per 10,000 inhabitants fell last year to 190, the lowest proportion recorded in France since the beginning of the nineteenth century. The relative increase of the population, the annual average of which was 18 per 10,000 inhabitants from 1901 to 1905, fell to 7 per 10,000 in 1906, and gave place in 1907 to a diminution of 5 per 10,000. It has gone up during the year 1908 to 12 per 10,000.

It would be, however, a mistake to believe that the improvement mentioned for the last year was general for the population of the whole of France. There were only 45 departments, those of the regions of the north, of Brittany, of the eastern frontier, of the Limousin, and of Corsica, in which the births exceeded the deaths. In the 42 other departments, those in the regions of the Garonne and the Rhône valleys, the deaths were in excess of the births.

In regard to the number of marriages, however, France occupies a front rank. There were recorded during the last year 315,928 marriages. This is the largest number that has been recorded since 1873, in which 321,238 marriages were celebrated. There is an increase of 1,172 by comparison with the corresponding figure for 1907, which was higher by 8,269 than the corresponding number of 1906. The proportion of newly married persons continues to increase; from 153 per 10,000 inhabitants in 1904, it has become 160 in 1907, and 161 during the last year.

The Centenary of Amédée Bonnet

The memory of the illustrious surgeon, Amédée Bonnet, author of well-known works on diseases of the joints and their treatment, on cauterization, etc., was celebrated June 7, at Amberieu in Bugey (a large town of the department of the Ain), in which he was born March 19, 1809; Professor Chauveau, member and delegate from the Academy of Medicine, presided over the ceremony, at which there were a great number of French and foreign physicians, including Professors Boeckel of Strasburg, Reverdin, Girard of Geneva, and Sonnenberg of Berlin. Professor Poncet, who occupies at the College of Medicine of Lyons the chair of clinical surgery, made illustrious by Bonnet (who died at Lyons, Dec. 1, 1858), sketched the work of the great surgeon in an excellent speech.

To Prohibit Sale of Nursing Bottles with Tubes

It is proposed in the senate to forbid the sale of nursing-bottles with tubes, under penalty of a fine of 25 to 100 francs, and, in case of a second offense, of imprisonment of eight days to a month.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, June 10, 1909.

Campaign Against Infantile Mortality in Germany

On June 4 the Empress Augusta Victoria House for the Repression of Infantile Mortality in the German Empire was opened in Charlottenburg in the presence of the empress, who is the protectress of the institution. This institute owes its existence to the increased effort to oppose the high infant mortality in Germany. In 1907 no fewer than 351,046 children died during the first year of life in Germany and about two-thirds of these died from disturbances of nutrition. If this mortality is compared with that of other countries, there appear distinct differences to the discredit of Germany. In 1906, among 100 children born living, there died during the first year of life: In New Zealand, 6.2; New South Wales, 7.5; South Australia, 7.6; Norway, 8.1; England (1907), 11.8; Holland, 12.7; Switzerland, 12.7; France, 14.3; Germany, 18.5; Hungary, 20.5; European Russia, 27.2.

The increase of population has diminished of late years because the number of births has fallen off. A further reduction of the increase of population can only be prevented by a further reduction of the total mortality. But this can only be reached by reducing the high infantile mortality.

The means for building were contributed mostly by private donations. The city of Charlottenburg gave the land, about three acres, on the occasion of the silver wedding of the imperial pair, the kaiser and empress contributed about $6,000, and collections in the empire have furnished more than $360,000. The functions which have been assumed by the institution are as follows:

1. The practical and scientific investigation of the questions pertaining to the nutrition and care of infants as well as the care of mothers.

2. The collection of data on infantile mortality and on the organization of institutions for the care of infants in the German empire and in other civilized countries.

3. To make the results of scientific and practical investigations available to the public by its publications and to offer information and counsel to officials and to public and private associations as well as private individuals.

In regard to the clinical and scientific studies it is proposed to receive pregnant women months before their expected delivery and retain them and their children in the house for months after delivery for the purpose of constant observation of the physiology and pathology of pregnancy. The healthy children will be kept under supervision after they leave the institution and data regarding the effectiveness of outside care will be collected. In the house there is also a milk kitchen and a stable for milk cows is connected with it so that it is possible to control the production and preparation of the milk and thus assume the entire responsibility for the nutrition of the child. This nutriment will be provided not merely for the children lodged in the house, but also given out in the outside work on the condition that the children are brought to the station in the house. In special rooms an

exhibition will be installed which will contain everything to illustrate the hygiene of the child, the nursery, and the lying-in room, both with respect to the family and institutions.

Nursing in the institute is in the hands of sisters who will have assistance from the mothers of the children and also from nurses and midwives who reside in the house for the purpose of training. For the care of 70 children, 10 sisters, 12 "lady nurses," 6 nurses and 6 midwives are provided. The training school has the task of supplying the truly felt want in Germany of nurses capable of caring for children in private houses. Two classes of these nurses are provided for. Women who are to receive training as "lady nurses" must have a mastery of a second modern language in addition to German, and must pay $288 for their education, while the ordinary nurses are required only to make a deposit which is returned to them at the end of their course. The "lady nurse" and nurse take the place of the mother in supervising the bringing up of the child, and hence it is desired when possible that they shall spring from the same social class as the child itself. This is the reason for the distinction in the requirements as to education and the expense of training. In the training itself, which lasts one year, no difference is made between the two classes of nurses. The midwives serving in the institution come directly after passing their examination, for six months to receive a special training in the care of nurslings and their feeding. In this way an intelligent view of the feeding of children will be promulgated by the aid of the midwives. The mothers received into the institute with their children are regularly employed. They are instructed in laundry work and in the making of plain children's clothing and in the care and feeding of the children. In this way the mothers are prepared to spread intelligent views regarding the feeding of children in their own circles after their discharge. The children discharged from the house are permanently kept under observation. As may be seen, the institute has laid out an extraordinarily extensive program, and there is reason to expect that under proper management it will give valuable service.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, June 9, 1909.

Breach of Professional Secrecy

A remarkable case of breach of professional secrecy has recently been brought into court and the result is most interesting to both laymen and physicians. The facts, briefly stated, were the following: A married woman, occupied in a country postoffice, contracted syphilis extragenitally. The physician whom she consulted did not at once recognize the nature of the disease, but, on arriving at the diagnosis, he cautioned the patient, giving her instructions to prevent the transmission of the disease to others. But as she neglected his cautions, the physician notified the postmaster-general of the patient's disease. Rumors soon spread in the village; the woman was dismissed from her post and later on was shunned by society. In the proceedings resulting from the action of the wronged patient, the physician was acquitted with the comment that "the accused doctor had undoubtedly acted in public defence, for by his action the danger threatening the community from the neglectful behavior of the patient was averted." It is the first instance in which voluntary breach of professional secrecy has not been punished in this country.

Lately several similar occurrences have taken place, but with the significant difference that the physician was asked by legal authority, and thus had to disclose his patient's disease. In an instance much spoken of lately, Prof. von Zeissl was treating a railway man for syphilis, who by neglect, in spite of a caution by the doctor, infected his two children, who went to school. As there was imminent danger of the playmates and fellow pupils of these two also falling victims to infection, von Zeissl brought it about by prudent medication, that the managing board of the school put an official question to him, backed by a forensic command; to this he replied that the children were suffering from an infectious contagious disease; these children were then refused admission to school until they brought a certificate of health from him. Much comment has been raised by the publication of these cases, and it must be stated that the majority of the profession still holds the opinion that the physician must stand by his patient whatever public interests are concerned. It is really a question of moral feeling. The proposed, but not yet accepted, new *Aerzte-Ordnung* (medical regulation) recommends the course of action adopted by the two physicians mentioned above.

Legislation Against Alcoholism

The congresses repeatedly held against alcohol and other factors have resulted in a bill to regulate the drink habit by reducing the number of places were alcohol is sold and bringing the number of public houses and the number of inhabitants into relation. The business hours of the retail dealers will be reduced to ten per day. No automatic appliances for the sale of alcoholic beverages are to be allowed. An important feature is the provision that debts contracted for alcohol drinking shall not be valid (the majority of drunkards drink on credit). Serious crimes committed by drunken persons have increased lately. Therefore the bill provides for the punishment of an intoxicated criminal, not for the crime, but for the intoxication. Repeated intoxication within one year in public is punishable by imprisonment of one to thirty days, or by a fine of 10 to 500 crowns ($2 to $100). The sale of alcoholic beverages to persons already under influence of alcohol is also punishable.

A Sanitarium for Physicians in Marienbad

A local medical club in Marienbad and Franzenblad has been formed to enable the profession to erect in these important health resorts a sanitarium for diseased practitioners. Physicians from Austria and Germany will be accommodated free of charge; others will have to pay a small sum for lodging and food, while baths and other therapeutic procedures will be free to them. Gout, rheumatism, obesity and cardiac disease are the chief indications for these health resorts, and it is known that doctors often suffer from them.

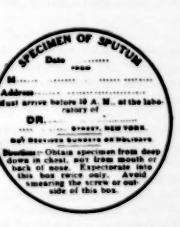
Correspondence

Sputum Boxes—A Protest

To the Editor:—I wish to call attention to a method by which a manufacturer endeavors to turn to his own exclusive advantage a device that originally was freely and without reserve placed at the disposal of physicians and the community at large. In the *Medical Record*, New York, Aug. 20, 1898, p. 287, I described a wooden container for the collection of sputum for laboratory examination which has since that time been in general use by health boards, sanatoria, laboratory

SPECIMEN OF SPUTUM
Date.....
Name
M.....
Address.....
Must arrive before 10 A. M. at the laboratory of
DR. STUART HART
130 WEST 59th STREET, NEW YORK
NOT DELIVERED SUNDAYS OR HOLIDAYS
Directions.—Obtain specimen from deep down in chest, not from mouth or back of nose. Expectorate into this box twice only. Avoid smearing the screw or the outside of this box.

1. Form of label used for eight years on Hart's sputum boxes.


SPECIMEN OF SPUTUM
Date.....
Name
M.....
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Must arrive before 10 A. M. at the laboratory of
DR.
STREET, NEW YORK.
NOT DELIVERED SUNDAYS OR HOLIDAYS
Directions:—Obtain specimen from deep down in chest, not from mouth or back of nose. Expectorate into this box twice only. Avoid smearing the screw or outside of this box.

2. Form of label proposed in Gibson's recent circular.

workers and physicians and has been actually distributed to the number of several hundred thousands. I have never had any pecuniary interest in the manufacture, sale or distribution of these boxes, and my only desire in regard to them has been that they should be well made and available at a reasonable price to all to whom they might be of service. It is needless to say that I have never attempted to secure a patent on the box, and its use has been placed without restriction at the disposal of the community at large.

At this point enters one Richard Gibson, who appears in the field as a manufacturer of sputum boxes. A recent circular put out by this gentleman, while not actually asserting originality, allows it to be implied not only by lack of mention of the fact that the sputum box as designed by me has been in use generally for ten years, but also by announcing in large type that he has applied for a patent. The very trivial alteration which he has made in the form of the original box will certainly not secure a patent for him, but by the use of the phrase, "patent applied for," he doubtless hopes to secure for his personal advantage a device which has long since been made the property of the public.

The unblushing effrontery of the implication of originality is attested not only by the similarity of the shape and construction of the boxes, but also by a comparison of the wording, spacing and style of type selected for the labels and of which I present samples.

There is no reason why Mr. Gibson or any one else should not manufacture, sell or use these boxes, but the attempt to secure a patent on the ideas of another which have been public property for many years, and the use of a motto, "patent applied for," in order to scare off others from the free production of these boxes is to my mind, and I believe the medical profession at large will agree with me, an encroachment of commercialism which should not pass unheeded.

T. STUART HART, New York City.
130 West 59th Street.

Mental Treatment by Physicians

To the Editor:—It is time for the medical profession and the ministry thoroughly to awake to the fact that Eddyism has spread because it in some measure satisfies a want. There is beneath its superstructure of falsity a fundamental truth, the power of faith, which draws people to it with the promise of cure. Some appreciative representatives of the Episcopal Church invented the Emmanuel movement as a cure for the evil of so-called "Christian Science," but the cure, to be successful, is too much like the disease. Its method of application, also, is too complex. The economic principle of the division of labor, whereby an individual's body is treated by a physician and his mind by a minister is not in this case conducive to thoroughness and effectiveness. It is, furthermore, suppositious and false to think that the clergy are by nature and calling better able to treat the mind than are other men. Although ministers as a body have studied mental science, only comparatively few of them are qualified to treat mental conditions. The number of medical men thus qualified is not great.

The idea is rather prevalent that all forms of mental treatment are fakes. Of course, many of them are. But in our own individual mental spheres do we all resign ourselves unreservedly to the theories of determinism, even of fatalism? Do we not practice mental treatment on ourselves by controlling, to greater or lesser degree, our mental content and our actions? Do we not unquestionably influence, also, the mental condition of others? And do we not voluntarily allow our mental condition to be influenced in varying degrees by others?

The fake cure cults, especially "Christian Science," are filled with people who are mentally sick. Any doctor who attends one of their experience meetings will be appalled by the chimerical and delusional character of their stories. They find relief in the suggestion that belief in the non-existence of their trouble makes it non-existent, be the complaint in the spiritual or material sphere. The idea works, of course, within a much smaller scope than they claim.

Now, there can be no question that the mind acts on the body, that the body reacts on the mind, and, as now especially concerns us, that the mind acts on the mind. Is it not illogical, therefore, that the treatment of the mental and of the physical aspects of life should be carried out by two different professions? Every physician should realize that his duty is to examine and to treat the whole being, mind as well as body. Most cases that require mental treatment require at the same time some form of medical treatment and supervision, and should, therefore, be under the care of one who is capable of attending the whole being. The practice of medicine should extend into the mental life of ailing humanity. Not only so-called physical pain, but also mental discomfort and deviation should bring the patient to the doctor. The intimate relation thus established would increase the influence and dignity of our profession, and enhance the well-being of humanity. Then would be restored to the profession the attribute of sanctity which was in earlier days regarded as inherent to it, and this sanctity would rest on a firm scientific basis. To these ends the medical colleges should require their students to be familiar with psychology, ethics, logic, the principles of philosophy, and psychiatry.

But how shall the need of people for religious exercise be supplied if they are to receive mental treatment from physicians? "Christian Science" and, to a great extent, the Emmanuel movement combine religion with mental treatment and, in fact, their treatment may be said to consist largely of the practice of religion, thus opening the mind to new influence. If in attempting to remove the existing evils, we are, as we should be, scientific, let us be so consistently scientific as to be religious and to advise patients to practice religion. Religion is an instinct, the exercise of which yields mental benefits. For example, the first product of a sincere, devout prayer made with concentrated thought is a frame of mind that will prepare one for the thing expected. Every person, be he savage or civilized, has the instinct of religion. And every mind, normal or pathologic, should modify itself with the benign influence of some rational, honest, sincere religion, for it is often the sheet-anchor of personality.

GEORGE EDWARD BARNES, M.D., Herkimer, N. Y.

The Combined Course for the Degrees of A.B. or B.S. and M.D.

To the Editor:—The ideas advanced by Dr. J. M. Dodson in THE JOURNAL, May 22, on a combined course leading to the degree of B.A. or B.S., with M.D., are in the right direction. The four years of college work after the high school should include medical subjects for the student intending to study medicine; this preparation should be credited toward his B.A. or B.S. degree. The student should be allowed to take a final examination on his medical studies before the state boards when he has finished the college course, and should receive credit for them.

The universities and colleges, when properly equipped, can give the first two years of the medical course as well as the average medical college or better. The course should comprise the study of anatomy with the dissection of the human body, chemistry, physiology, pathology, embryology and bacteriology. The instruction, always as practical as possible, should continue throughout the entire year with short intermissions every three or four months. I would divide the profession into physicians, surgeons, oculists and dentists; I would arrange courses of study to meet the needs of each division and would graduate the student into one or another of these four divisions. Dentists are graduated as specialists now; oculists might be; but in both cases the arrangement of studies can not be entirely satisfactory, as students are required to spend, on studies useless to them, time which might be better spent in practical work. The work of surgeons and physicians is more closely related, but still presents great differences.

The suggested arrangement of studies would not prevent a student from graduating in more than one class of the profession, but would encourage a more thorough preparation in the special line chosen. The practice of permitting the recent graduate in general medicine to treat the severe cases of the eye or ear or to perform difficult operations in surgery without more special preparation has tended to discredit the profession and to harm the patient. We are trying to teach too much for thoroughness, and to force all students to one standard without regard to natural ability; we attain only a smattering in much and perfection in nothing. The fields of surgery and pathology have increased greatly in recent years and bacteriology is a new study. Our present system of education, formerly sufficient to the demands of the times, is based on conditions now antiquated or obsolete. Medicine now is too large a field for any one to be proficient in all its departments.

JOHN BINNIE, Poynette, Wis.

Reorganization of State Charities in Illinois

To the Editor:—In the report of the Committee on Medical Legislation of the American Medical Association at the Atlantic City session, I notice the following from Illinois: "A most excellent bill reorganizing the state charitable, eleemosynary and corrective institutions and placing them all in the hands of a state board of administration, was introduced, but failed to become a law." The measure above referred to, after having been previously passed by the House, passed the Senate during the last night of the session, and

has since been signed by the governor. The board created by this act is to be non-partisan and to consist of five members, but will not have control over corrective institutions.

L. C. TAYLOR, Springfield, Ill.

Chairman Committee on Medical Legislation, Illinois Medical Society.

A Misquotation from Bishop Fallows Acknowledged

To the Editor:—In an article entitled, "The General Practitioner and the Functional Nervous Diseases," published in THE JOURNAL (Jan. 9, 1909, lii, 87) I quoted some sentences from "Health and Happiness" by Samuel Fallows, D.D. These sentences were taken from the New York *Evening Sun*, in which they appeared in quotation marks. Bishop Fallows has written to me to say that the sentences making up the quotation are taken from various portions of his book; that is, they are taken out of the proper context. I regret that I did not verify the quotation before the article was published.

JOSEPH COLLINS, New York.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

DISPOSAL OF GARBAGE AND FILTRATION OF WATER-SUPPLY

To the Editor:—Please tell me where I can obtain any information, applicable to a city of 30,000 inhabitants, in regard (1) to modern methods of garbage disposal, and (2) to city filtration of water-supply.

ALBERT N. MUELLER,
City Health Commissioner, Rock Island, Ill.

ANSWER.—1. Modern methods of garbage disposal are clearly described in two papers in the *Transactions of the American Public Health Association* for 1901 (Vol. xxvii). These are "Refuse Disposal in Boston," by H. W. Hill, p. 186, and "Refuse Disposal in the District of Columbia," by W. C. Woodward, p. 194. An especially valuable summary also appears in the same publication for 1903 (Vol. xxix), entitled "Some Statistics of Garbage Disposal for the Larger American Cities in 1902," by C-E. A. Winslow and P. Hansen. The last named paper gives valuable data regarding cost in this country and abroad, a bibliography of 27 titles, and a classified list of cities using different processes (further information could doubtless be obtained from the municipal authorities if desired). The facts stated in the papers cited seem to justify the conclusion, "that separation of waste materials is neither economical nor desirable, that the cremation of mixed refuse appears to be the most generally satisfactory process and that this cremation may be best accomplished in furnaces of the English type."

2. Three of the best books in English on water filtration are "The Filtration of Water-Supplies," by Allen Hazen, "Clear Water and How to Get It," by the same author, and "Water and Its Purification," by Samuel Rideal. The two first-named are published by John Wiley and Sons, the last by J. B. Lippincott; all are procurable through your local booksellers.

STEREOSCOPY WITHOUT A STEREOSCOPE

To the Editor:—It occurred to me that stereoscopic illustrations of steps in operative procedures, tumors, etc., could be more generally used than they are now. I have noticed that, with only a little practice, one can get the stereoscopic effect from a stereoscopic illustration, without the use of a stereoscope. Hold the stereogram before the eyes at a distance of 12 to 26 inches; look at the white perpendicular line up the middle; gazing not too fixedly at this line, endeavor to lose your accommodation, when, if you persist, a dissolving effect takes place and the single object stands out clear in perspective. The use of such illustrations in our journals and surgical works has many obvious advantages and will appeal to every scientific and sound-eyed physician. This is merely a practical application of an old physiologic fact.

IVAN I. YODER, M.D., Cleveland, Ohio.

THE CAMMIDGE REACTION

To the Editor:—Please give information in regard to the pancreatic reaction of Cammidge. R. H. MINER, Windsor, Vt.

ANSWER.—The pancreatic reaction of Cammidge was described in THE JOURNAL, Aug. 22, 1908, li, 691. Opinions are still divided as to its clinical value, although the bulk of evidence is in favor of the view that, while it is not pathognomonic, it is a valuable diagnostic aid.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, for the week ended June 26, 1909.

Schmitter, Ferdinand, 1st lieut., ordered to St. Louis, Mo., for temporary duty in charge of the Medical Supply Depot.

Truby, Albert E., major, ordered to take charge of chief surgeon's office, San Francisco, Cal., during the absence of Major James M. Kennedy on inspection tour.

Dale, Frederick A., capt., granted leave of absence for 14 days.

Foster, Charles L., capt., ordered from San Francisco, Cal., to Washington, D. C., in charge of an escort to insane patients.

Perley, Harry O., col., announced as chief surgeon, Department of the Colorado; ordered to inspect posts in that department.

Kiersted, Henry S., capt., granted leave of absence for 1 month.

Chamberlain, Weston P., major, detailed a member of the board of medical officers for studying tropical diseases in Philippine Islands.

Foster, Charles L., capt., granted leave of absence to July 6.

O'Day, Sylvester F., 1st lieut., M.R.C., honorably discharged from the service of the United States, his services being no longer required.

Buchsbaum, Maurice, 1st lieut., M.R.C., ordered to duty with troops marching from Fort D. A. Russell, Wyo., to Fort Robinson, Neb., instead of 1st Lieut. Joseph E. Bastion, M.R.C.

Tyler, George T., 1st lieut., M.R.C., relieved from duty at Plattsburg Barracks, N. Y.; will proceed to Seattle, Wash., in time to sail August 5th for the Philippine Islands.

Kieruff, H. Newton, 1st lieut., M.R.C., ordered to Fort Snelling, Minn., July 2, for temporary duty.

McMillan, Clemons W., 1st lieut., M.R.C., granted leave of absence for 2 months, August 20.

Fisk, Owen C., 1st lieut., M.R.C., ordered to Fort Michie, N. Y., for temporary duty during the week beginning July 12.

McCown, Thomas R., 1st lieut., M.R.C., ordered to Fort Duchesne, Utah, for temporary duty during the week beginning July 12.

Pomeroy, William H., contract surgeon, granted leave of absence for 21 days.

Craig, Emmett J., dent.-surg., ordered to Fort Des Moines, Iowa, for 1 month, and thence to Fort Riley, Kan. for 3 months.

Ryan, Edward P. R., dent.-surg., ordered to Fort Mackenzie, Wyo. for 20 days, and thence to Fort D. A. Russell, Wyo. for 2 months.

Boak, S. Davis, dent.-surg., ordered from Vancouver Barracks, Wash., to Fort Lawton, Wash., for duty.

Voorhies, Hugh G., dent.-surg., relieved from duty at Fort Snelling, Minn., and ordered to Jefferson Barracks, Mo., for duty.

Anes, John R., dent.-surg., relieved from duty at Jefferson Barracks, Mo., and ordered to Fort Snelling, Minn., for duty.

Whinnery, Jean C., dent.-surg., arrived at Fort Egbert, Alaska, for duty.

Navy Changes

Changes in Medical Corps, U. S. Navy, for the week ended June 26, 1909:

Williams, R. B., surgeon, commissioned surgeon from Dec. 11, 1908.

Kennedy, R. M., surgeon, ordered to command the naval hospital, San Juan, P. R., sailing from New York, N. Y., about July 24.

Johnson, M. K., surgeon, detached from the Naval Training Station, Narragansett Bay, R. I., July 10 and ordered to the *South Dakota*.

Von Wedekind, L. L., surgeon, detached from the *South Dakota* and ordered home to await orders.

Grove, W. R., surgeon, detached from the *Minnesota* and ordered to the Naval Training Station, Narragansett Bay, R. I.

Alfred, A. R., surgeon, detached from the *Wolverine* and ordered to the *Minnesota*.

Dunn, H. A., P. A. surgeon, detached from the *Independence*, ordered home and granted leave for 2 months.

Wood, E. A., surgeon, detached from the Naval Hospital, San Juan, P. R., and ordered home to wait orders.

Munger, C. B., asst.-surgeon, ordered to the Naval Training Station, San Francisco.

Robnett, A. H., asst.-surgeon, ordered to duty at Naval Hospital, Boston.

Steadman, W. G., asst.-surgeon, detached from the *Louisiana* and ordered to continue treatment at the Naval Hospital, Norfolk, Va.

Reed, A. U., asst.-surgeon, ordered to Naval Recruiting Station, Chattanooga, Tenn.

Cohn, I. F., asst.-surgeon, ordered to duty at the Naval Hospital, Philadelphia.

Woods, E. L., asst.-surgeon, ordered to duty at the Naval Hospital, Annapolis, Md.

Olson, G. M., asst.-surgeon, ordered to the Naval Recruiting Station, Minneapolis.

Shippen, L. P., asst.-surgeon, detached from the Naval Recruiting Station, Minneapolis, and ordered to the Navy Yard, Mare Island, Cal.

Glitner, H. A., asst.-surgeon, detached from the Naval Training Station, San Francisco, and ordered to the *Glacier*.

Eytinge, E. O. J., asst.-surgeon, ordered to the *Wolverine*.

Riker, C. A., asst.-surgeon, detached from the *Franklin* and ordered to the *Louisiana*.

Thomas, G. E., acting asst.-surgeon, detached from duty at the Naval Hospital, Norfolk, Va., and ordered to the *Franklin*.

Wheeler, L. H., P. A. surgeon, detached from the *Hancock* and ordered to the *Marietta*, sailing from New York, N. Y., about June 24.

Brister, J. M., P. A. surgeon, detached from the *Milwaukee* and ordered to the *Independence*.

Jenness, B. F., P. A. surgeon, detached from the *Glacier* and ordered to the Milwaukee and to additional duty at the Naval Hospital, Puget Sound, Wash.

Du Bose, W. R., medical inspector, detached from command of Naval Hospital, Yokohama, Japan, and ordered to Bureau Medicine and Surgery, Navy Department.

Pryor, J. C., surgeon, ordered to command the Naval Hospital, Yokohama, Japan.

Morris, L., surgeon, detached from the Naval Station, Cavite, P. I., and granted leave until September 1.

White, E. C., P. A. surgeon, detached from the Naval Recruiting Station, Cleveland, Ohio, and ordered to temporary duty at the Naval Torpedo Station, Narragansett Bay, R. I.

Gill, J. E., P. A. surgeon, ordered to Naval Recruiting Station, Cleveland, Ohio.

French, G. R. W., acting asst.-surgeon, appointed acting asst.-surgeon from June 18, 1909.

Wilson, H. D., surgeon, detached from the *Illinois* and ordered to continue other duties.

Irvine, W. L., acting asst.-surgeon, ordered to duty at the Naval Hospital, Boston.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended June 23, 1909:

Wasdin, Eugene, surgeon, granted 1 month's leave of absence from June 22, 1909, on account of sickness.

Carrington, P. M., surgeon, directed to proceed to Los Angeles, Cal., on special temporary duty, June 17, 1909. Granted 15 days' leave of absence in July, 1909.

Magruder, G. M., surgeon, granted 23 days' leave of absence from July 9, 1909.

Geddings, H. D., surgeon, on completion of duties enjoined by Bureau order of June 8, 1909, detailed to represent the Service at the International Conference on Tuberculosis to be held in Stockholm, Sweden, July 8-10, 1909. Assigned for duty in the office of the American Consul at Naples, Italy. Directed to proceed to Hamburg and Berlin, Germany, on special temporary duty.

Wertenbaker, C. P., surgeon, detailed to inspect the Bacterio-Therapeutic Laboratory, Asheville, N. C.

Anderson, John F., P. A. surgeon, directed to proceed to Albany and Peekskill, N. Y., on special temporary duty.

Ramus, Carl, P. A. surgeon, granted 1 day's leave of absence June 13, 1909, on account of sickness.

McClintic, T. B., P. A. surgeon, on expiration of present leave of absence directed to report to Director of Hygienic Laboratory for temporary duty.

Currie, Donald H., P. A. surgeon, detailed to represent the Service at the Second International Congress against Leprosy to be held in Bergen, Norway, August 16-19, 1909.

Holt, John M., passed assistant surgeon, detailed to represent the service at the joint annual meeting of the medical associations of the states of Washington, Oregon and Idaho, to be held in Seattle, Wash., July 20-23, 1909.

Gwyn, M. K., P. A. surgeon, granted 15 days' leave of absence from June 21, 1909.

Collins, G. L., P. A. surgeon, granted 1 day's leave of absence, June 18, 1909, Paragraph 189, Service Regulations.

Friedman, Henry M., acting assistant surgeon, granted 28 days' leave of absence from July 4, 1909.

Gibson, L. P., acting asst.-surgeon, granted 8 days' leave of absence from June 14, 1909.

Houghton, M. W., acting asst.-surgeon, granted 9 days' leave of absence from July 17, 1909.

Mason, Wm. C., acting asst.-surgeon, granted 6 days' leave of absence from June 28, 1909.

Rea, Robert H., acting asst.-surgeon, granted 1 day's leave of absence, June 18, 1909.

Iverson, J. W., acting asst.-surgeon, granted 4 days, leave of absence from June 22, 1909.

BOARDS CONVENED

Board of medical officers convened to meet at the U. S. Immigration Office, Vancouver, B. C., June 12, 1909, for the purpose of examining alien Chee Yu. Detail for the board: Passed Assistant Surgeon M. W. Glover, chairman; Acting Assistant Surgeon H. R. Storrs; Acting Assistant Surgeon Stuart A. Ross, recorder.

Board of medical officers convened to meet at the Bureau June 19, 1909, to determine the fitness of Pharmacist E. R. Scott for promotion to the grade of Pharmacist of Class 1. Detail for the board: Assistant Surgeon-General W. J. Pettus, chairman; Passed Assistant Surgeon J. W. Trask, recorder.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended June, 25, 1909:

SMALLPOX—UNITED STATES

California: Stockton, Jan. 1-Feb. 28, 20 cases.
Georgia: Columbus, June 5-12, 1 death; Macon, June 6-13, 5 cases.
Illinois: Danville, June 6-13, 5 cases; Moline, 1 case.
Indiana: Evansville, June 5-12, 1 case; Indianapolis, June 6-13, 1 case; La Fayette, June 7-14, 1 case; South Bend, June 5-12, 15 cases.
Iowa: Council Bluffs, June 7-14, 1 case; Davenport, June 6-13, 2 cases; Sioux City, June 5-12, 1 case.
Kansas: Kansas City, June 5-12, 1 case; Wichita, May 22-29, 5 cases, June 5-12, 2 cases.
Kentucky: Covington, June 5-12, 2 cases; Henderson, May 1-31, 2 cases; Lexington, June 5-12, 2 cases.
Louisiana: New Orleans, June 5-12, 8 cases.
Michigan: Saginaw, May 22-29, 2 cases.
Montana: Butte, June 3-10, 9 cases.
Nebraska: South Omaha, May 15-22, 2 cases.
New York: New York, June 5-12, 1 case.
Ohio: Cincinnati, June 4-11, 3 cases; Cleveland, 1 case; Eaton, to June 15, 1 case; Salineville, April 5-11, 46 cases.
Tennessee: Knoxville, June 5-12, 5 cases.
Texas: El Paso, June 8-15, 1 case; Fort Worth, May 1-31, 21 cases, 2 deaths; Galveston, June 4-11, 1 case; San Antonio, June 5-12, 3 cases.
Utah: Salt Lake City, May 1-31, 56 cases.
Washington: Spokane, May 22-June 5, 6 cases; Tacoma, May 30-June 6, 1 case.
Wisconsin: Marinette, June 5-12, 1 case; Milwaukee, June 7-14, 7 cases.

SMALLPOX—INSULAR

Philippine Islands: Manila, April 24-May 1, 8 cases, 1 death.

SMALLPOX—FOREIGN

Brazil: Bahia, April 30-May 7, 5 cases, 3 deaths; Rio de Janeiro, April 25-May 6, 32 cases, 11 deaths; Sao Paulo, April 12-May 2, 8 deaths.
Canada: Halifax, May 30-June 5, 1 case; Vancouver, May 1-31, 6 cases.
China: Hongkong, April 3-May 1, 5 cases, 1 death; Tientsin, May 1-3, 1 case.
Ceylon: Colombo, April 24-May 8, 5 cases.
Egypt: Alexandria, April 1-30, 5 cases, 1 death; Cairo, May 6-13, 4 cases, 2 deaths; Suez, Mar. 25-May 20, 56 cases, 3 deaths.
Great Britain: Bristol, May 22-29, 1 case.
India: Bombay, May 11-18, 11 deaths; Calcutta, May 1-8, 25 deaths; Madras, May 8-14, 2 deaths; Rangoon, May 1-8, 7 deaths.
India-China: Saigon, May 1-8, 6 cases, 2 deaths.
Italy: Genoa, May 1-15, 2 cases; Naples, May 23-30, 17 cases.
Japan: Formosa, May 1-8, 3 cases.
Mexico: Chichupahua, May 31-June 6, 2 cases, 3 deaths; Monterey, April 29-May 6, 3 deaths.
Portugal: Lisbon, April 26-May 2, 3 cases; May 9-16, 6 cases.
Russia: Odessa, May 8-29, 8 cases, 2 deaths; Warsaw, April 3-24, 6 deaths.
Spain: Barcelona, May 24-31, 4 deaths; Valencia, May 15-22, 8 cases; Vigo, May 22-29, 2 deaths.
Turkey: Constantinople, May 16-23, 4 deaths.

YELLOW FEVER

Barbados: Parish, St. Joseph, June 5-12, 3 cases.
Brazil: Bahia, April 30-May 7, 8 cases, 3 deaths; Manaos, May 15-22, 2 deaths.
Cuba: Habana, June 21, 1 case on *S. S. Fürst Bismarck* from Veracruz.
Ecuador: Quayaquil, May 1-22, 21 deaths.
Trinidad: Mar. 27-April 3, 1 case, 1 death.

CHOLERA—INSULAR

Philippine Islands: Provinces, April 24-May 1, 16 cases, 11 deaths.

CHOLERA—FOREIGN

China: Amoy, June 19; Swatow, May 1, present.
India: Bombay, May 11-18, 2 deaths; Calcutta, May 1-8, 68 deaths; Rangoon, 1 death.
Russia: St. Petersburg, May 25-June 1, 5 cases, 4 deaths.
Straits Settlements: Singapore, April 24-May 1, 1 death.

PLAGUE

Brazil: Rio de Janeiro, May 2-9, 1 case.
China: Hongkong, April 3-May 1, 12 cases, 8 deaths; Swatow, April 10-May 15, 2,950 deaths in 14 districts in vicinity.
Ecuador: Guayaquil, May 1-22, 29 deaths.
Egypt: May 13-June 2, 51 cases, 26 deaths.
India: April 24-May 8, 10,353 cases, 8,690 deaths; Bombay, May 11-18, 212 deaths; Calcutta, May 1-8, 255 deaths; Rangoon, 18 deaths.
Indo-China: Saigon, May 1-8, 2 cases, 1 death.
Japan: Formosa, May 1-15, 116 cases, 98 deaths; Yokohama, May 15-22, 2 cases.
Venezuela: Caracas, June 9-17, 5 cases.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ARIZONA: Phoenix, July 5-6. Sec., Dr. Ancil Martin.
ARKANSAS: Homeopathic, Little Rock, July 13. Sec., Dr. P. C. Williams, Texarkana.
ARKANSAS: Regular, Little Rock, July 13. Sec., Dr. F. T. Murphy, Brinkley.
COLORADO: Denver, July 6. Sec., Dr. S. D. VanMeter, 1723 Tremont Place.
CONNECTICUT: Regular, New Haven, July 13-14. Sec., Dr. Charles A. Tuttle, 196 York St.; Homeopathic, New Haven, July 13. Sec., Dr. Edwin C. M. Hall, 82 Grand Ave.; Eclectic, New Haven, July 13. Sec., Dr. T. S. Hodge, 17 Main St., Torrington.
DISTRICT OF COLUMBIA: Washington, July 13-16. Sec., Dr. George C. Ober, 210 B St., S. E.
INDIANA: 120 State House, Indianapolis, July 13-15. Sec., Dr W. T. Goti.
KENTUCKY: Louisville, July 6. Sec., Dr. J. N. McCormack, Bowling Green.
MAINE: State House, Augusta, July 13-14. Sec., Dr. Frank W. Sewall, 806 Congress St., Portland.
MASSACHUSETTS: State House, Boston, July 13-15. Sec., Dr. Edwin B. Harvey, Room 159, State House.
NEW MEXICO: Santa Fe, July 12. Sec., Dr. J. A. Massie.
NORTH DAKOTA: Grand Forks, July 6-8. Sec., Dr. H. M. Wheeler.
OKLAHOMA: Guthrie, July 13. Sec., Dr. Frank P. Davis, Enid.
OREGON: Portland, July 6. Sec., Dr. R. C. Coffey.
SOUTH DAKOTA: Watertown, July 14-15. Sec., Dr. H. E. McNutt, Aberdeen.
UTAH: Salt Lake City, July 5. Sec., Dr. G. F. Harding, 310 Templeton Bldg.
VERMONT: Burlington, July 13-15. Sec., Dr. W. Scott Nay, Underhill.

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WASHINGTON: Seattle, July 6-8. Sec., Dr. Kenneth B. Turner, Walker Bldg.
WEST VIRGINIA: Charleston, July 13-15. Sec., Dr. H. A. Barbee, Point Pleasant.
WISCONSIN: Madison, July 13-15. Sec., Dr. J. V. Stevens, Jefferson.

Washington January Report

Dr. Kenneth Turner, secretary of the Washington State Medical Examining Board, reports the written examination held at Spokane, Jan. 5-7, 1909. The number of subjects examined in was 15; total number of questions asked, 120; percentage required to pass, 75. The total number of candidates examined was 94, of whom 72 passed and 22 failed. Two candidates took an incomplete examination. The following colleges were represented:

College	PASSED Year Grad.	Per Cent.
College of Physicians and Surgeons, San Francisco	(1907)	77.
California Medical College	(1897)	70.5*
Denver and Gross College of Medicine	(1907)	85.
George Washington University	(1907) 82, 84; (1908)	85.
Rush Medical College	(1900) 88; (1907) 87; (1908)	83.
Northwestern University Medical School,	(1893) 79; (1896) 80; (1904) 92; (1907) 85; (1908) 84.	
Illinois Medical College	(1906)	78.
College of Physicians and Surgeons, Chicago	(1908)	82.
Hahnemann Medical College and Hospital, Chicago	(1907)	77.
Eclectic Medical College of Indiana	(1908)	79.
Medical College of Indiana	(1905)	85.
University of Iowa, College of Medicine	(1908)	83. 83.
University of Louisville	(1907)	77.
Kentucky University	(1897)	75.
Baltimore University	(1897)	76.
Baltimore Medical College	(1908)	78.
Boston University	(1903)	81.
College of Physicians and Surgeons, Boston	(1907)	75.
Tufts College Medical School	(1907)	86.
Johns Hopkins Medical School	(1907)	85.
University of Michigan	(1901)	82.
University of Minnesota	(1905) 85; (1906)	76.
Hamline University, Minneapolis	(1905)	79.
St. Louis College of Physicians and Surgeons	(1902)	79.
Barnes Medical College	(1905)	75.
Washington University, St. Louis	(1908)	86.
St. Louis University	(1908)	78.9, 86.
Creighton Medical College	(1907) 80, 83,	86.
University of Nebraska	(1905)	80.
Bellevue Hospital Medical College	(1896)	76.
Columbia University, College of Phys. and Surg	(1905)	91.
Paulte Medical College	(1882)	79.
Toledo Mdical College	(1896) 71,	80.
Eclectic Medical Institute, Cincinnati	(1899)	78.
Medical College of Ohio	(1899)	86.
Cincinnati College of Medicine and Surgery	(1908)	83.
University of Oregon	(1907) 80; (1908)	89.
Willamette University	(1906) 70.1*; (1907) 87; (1908)	79. 84.
Jefferson Medical College	(1905) 90; (1908)	76. 90.
University of Pennsylvania	(1880) 85; (1903)	88.
Medico-Chirurgical College of Philadelphia	(1907)	77.
Vanderbilt University	(1891)	78.
University College of Medicine, Richmond	(1899)	80.
University of Virginia	(1902)	89.
McGill University, Quebec	(1895) 85; (1903)	91.
Western University, London, Ontario	(1907) 84; (1908)	77.
Trinity Medical College, Ontario	(1894)	88.
University of Strassburg, Germany	(1900)	79.
University of Paris, France	(1896)	82.
FAILED		
Kentucky School of Medicine	(1908)	73.5
Rush Medical College	(1892)	60.
American College of Medicine and Surgery	(1906)	72.
Hospital College of Medicine, Louisville	(1905)	70.
Baltimore Medical College	(1907)	70.
Tulane University of Louisiana	(1887)	62.
Central College of Phys. and Surg., Indianapolis	(1903)	68.
Tufts College Medical School	(1908)	63.7
Detroit College of Medicine	(1907)	70.
University of, Minnesota	(1906)	63.
St. Louis University	(1905)	69.
Ensworth Central Medical College	(1906)	71.
Missouri Medical College	(1894)	64.
University Medical College, Kansas City	(1901)	62.
Kansas City Homeopathic Medical College	(1896)	66.
St. Louis College of Physicians and Surgeons	(1896)	69.1
Creighton Medical College	(1901)	73.6
Tennessee Medical College	(1893) 48; (1900)	47.
University of Nashville	(1902)	64.

* Ten or more years of practice entitles a physician to be licensed on a grade of 70 per cent.

State Board Statistics—A Correction

In the State Board Statistics published in THE JOURNAL, May 22, 1909, it was reported that two candidates who failed in Massachusetts were graduates of the Chicago College of Medicine and Surgery. Later correspondence with the Massachusetts board, however, states that the candidates were undergraduates and the failures, therefore, should not be charged against the college named.

Association News

PROCEEDINGS OF ATLANTIC CITY SESSION

(*Continued from page 2086, Vol. LII*)

SECTION TRANSACTIONS

Those who desire copies of the 1909 Transactions of any of the Sections, but who are not on the permanent subscription list, should order them at once, as printing will commence soon on several. Only enough are printed to supply the demand, and each year some persons order too late to be supplied. It is to be remembered that one may give a permanent order for Transactions; and those specified are sent, from year to year, until the order is canceled. By this arrangement each book costs the subscriber $1.00, payable at time of delivery. Address orders to the American Medical Association, 103 Dearborn Avenue, Chicago.

MINUTES OF SECTIONS

The minutes of the proceedings of the twelve sections at the sixtieth annual session, held at Atlantic City, June 8 to 11, 1909, are given below. A number of reports of committees, which require too much space for use here, will be published later.

SECTION ON PRACTICE OF MEDICINE

TUESDAY, JUNE 8—AFTERNOON

The Section was called to order by the chairman, Dr. Joseph L. Miller, Chicago, at 2 p. m., at the Savoy Theater.

Dr. N. B. Potter, New York City, read a paper on "Medical Supervision of Boarding Schools, and Athletic Contests Among School Boys." Discussed by Drs. De Lancey Rochester, Buffalo; Richard C. Cabot, Boston; Stanley P. Black, Pasadena, Cal., and Potter.

Dr. Frederick Forchheimer, Cincinnati, read a paper on "Cardiac and Vascular Complications in Pneumonia, with Special Reference to Treatment." Discussed by Drs. De Lancey Rochester, Buffalo; Frank Billings, Chicago; C. F. Hoover, Cleveland; John H. Musser, Philadelphia; Alexander Lambert, New York City; Theodore Potter, Indianapolis, and Forchheimer.

Dr. W. G. MacCallum, Baltimore, read a paper on "An Experimental Study of Gastric Tetany." Discussed by Drs. Allen A. Jones, Buffalo, and Nathaniel B. Potter, New York.

Dr. Frank Billings, Chicago, read a paper on "Chronic Infectious Endocarditis." Discussed by Drs. Alfred Stengel, Philadelphia; De Lancey Rochester, Buffalo; John A. Witherspoon, Nashville; Walter L. Bierring, Iowa City; John M. Anders, Philadelphia; Charles G. Stockton, Buffalo; Richard C. Cabot, Boston, and Billings.

Dr. Allen A. Jones, Buffalo, read a paper on "Diverticulum of the Pylorus." Discussed by Drs. Charles G. Stockton, Buffalo, and Jones.

Dr. Warren Coleman, New York City, read a paper on "Diet in Typhoid Fever." Discussed by Drs. Max Einhorn, New York City; Frank E. Brown, Baltimore; Thomas A. Claytor, Washington; Arthur K. Stone, Boston; A. Jacobi, New York City; John M. Anders, Philadelphia; Walker, Philadelphia; Parker, Detroit; Woods Hutchinson, New York City, and Coleman.

WEDNESDAY, JUNE 9—MORNING

Dr. Judson Daland, Philadelphia, read a paper on "Clinical Significance of Indicanuria." Discussed by Drs. Heinrich Stern, New York City; Harry A. Harrower, Chicago; Richard C. Cabot, Boston; Allen A. Jones, Buffalo;; Anthony Bassler, New York City, and Daland.

Dr. Philip King Brown, San Francisco, read a paper on "The Diagnostic Value of Stained Specimens of Stools in Cancer of the Stomach." Discussed by Drs. Herman B. Allyn, Philadelphia; Allen A. Jones, Buffalo; Anthony Bassler, New York City, and Brown.

Dr. Alexander Lambert, New York City, read a paper on "Resorption of Proteids, Carbohydrates and Fats in the Chronic Alcoholic." Discussed by Drs. E. P. Joslin, Boston; John A. Lichty, Pittsburg, and Lambert.

Dr. Charles G. Stockton, Buffalo, read a paper on "The Diagnostic Value and Limitations of Analysis of the Gastric Contents."

Dr. A. W. Crane, Kalamazoo, Mich., read a paper on "X-Ray Evidence in Gastric Cancer."

Dr. Clifford B. Farr, Philadelphia, read a paper on "The Determination of Trypsin in the Stomach Contents After the Oil Test Meal."

These three papers were discussed by Drs. G. E. Pfahler, Philadelphia; Judson Daland, Philadelphia; Allen A. Jones, Buffalo; Richard C. Cabot, Boston; John A. Lichty, Pittsburg; Harry A. Harrower, Chicago; John N. Upshur, Richmond, Va.; C. W. Smith, Baltimore; Frank Smithies, Ann Arbor, Mich.; Alexander Lambert, New York City; Philip King Brown, San Francisco; Stockton and Crane.

Dr. Charles P. Emerson, Clifton Springs, N. Y., read a paper on "The Diagnostic Importance of Examination of the Feces." Discussed by Drs. Henry F. Hewes, Boston; George Dock, New Orleans; Walter L. Bierring, Iowa City, Iowa; David L. Edsall, Philadelphia; Woods Hutchinson, New York City, and Sir James Alexander Grant, Ottawa, Ontario.

WEDNESDAY, JUNE 9—AFTERNOON

Dr. James B. McElroy, Memphis, read the oration in Medicine: "Tropical Diseases, America's Opportunities and Obligations."

The chairman appointed the following Nominating Committee: Drs. David L. Edsall, Philadelphia; D. Vanderhoof, Richmond, and Philip King Brown, San Francisco.

Dr. Samuel T. Darling, Ancon, Canal Zone, read a paper on "Transmission of Malarial Fever in the Canal Zone by Anopheles Mosquitoes." Discussed by Dr. Richard C. Cabot, Boston; John A. Witherspoon, Nashville; Seale Harris, Mobile, Ala., and Darling.

Dr. Simon Flexner, New York City, read a paper on "The Present Status of the Serum Treatment of Epidemic Cerebrospinal Meningitis." Discussed by Drs. Thomas Morgan Rotch, Boston; Philip King Brown, San Francisco; William Litterer, Nashville, and Flexner.

Dr. Herman N. Adler and Dr. Gerald Blake, Boston, presented a paper on "The Retention of Alkali by the Kidney, with Special Reference to Acidosis." Discussed by Drs. E. P. Joslin, Boston, and Adler.

Dr. Sidney K. Simon, New Orleans, read a paper on "Amebic Dysentery." Discussed by Drs. T. B. Futcher, Baltimore; George Dock, New Orleans; Hobart A. Hare, Philadelphia; Hugo A. Freund, Detroit; James P. Tuttle, New York City; Samuel Goodman Gant, New York City, and Simon.

THURSDAY, JUNE 10—MORNING

Dr. Edward F. Wells, Chicago, secretary of the Committee on Program, stated that the conclusions reached by the committee were that the best interest of the Section on Medicine would be served by asking for a tentative recommendation of last year's report, and it asked that the matter be referred for further consideration to the Executive Committee, which should work out the problems involved. (The report of the Committee on Program appeared in full in Proceedings of the Chicago Session, THE JOURNAL, June 20, 1908, page 2080.)

Dr. DeLancey Rochester, Buffalo, moved that the report be received and that the recommendations be adopted. The motion was seconded and carried.

The Nominating Committee made the following report: Chairman, Dr. George Blumer, New Haven; secretary, Dr. Wilder Tileston, Boston; orator, Dr. Richard C. Cabot, Boston; delegate, Dr. Joseph Capps, Chicago; alternate delegate, Dr. Alexander Lambert, New York City.

Dr. Munson moved the adoption of the report; the motion was carried.

Dr. Warfield T. Longcope, Philadelphia, read a paper on "The Association of Aortic Insufficiency with Syphilitic Aortitis." Discussed by Drs. Richard C. Cabot, Boston; Allen A. Jones, Buffalo, and Longcope.

Dr. Henry A. Christian, Boston, read a paper on "Clinical Value of Recent Studies in Experimental Nephritis."

Dr. John H. Musser, Philadelphia, read a paper on "Hypertension in Nephritis; Its Cause and Treatment."

Dr. Victor C. Vaughan, Ann Arbor, being unable to attend, by a vote of the Section his paper on "The Value and Limitations of a Salt-Free Diet and Restriction of Fluids in Nephritis," was read for him by Dr. H. W. Hewlett, Ann Arbor.

Dr. Edward F. Wells, Chicago, read a paper on "The Management of Uremia."

These four papers were discussed by Drs. David L. Edsall, Philadelphia; Albert Robin, Wilmington, Del.; De Lancey Rochester, Buffalo; James Tyson, Philadelphia; John A. Lichty, Pittsburg; John N. Upshur, Richmond, Va.; C. W. Smith, Baltimore; Walter L. Bierring, Iowa City, Iowa; Heinrich Stern, New York City; Boardman Reed, Los Angeles; Hugo A. Freund, Detroit; C. F. Hoover, Cleveland; Christian, Musser and Wells.

Dr. George Dock, New Orleans, read a paper on "The Talma-Morrison Operation in the Treatment of Cirrhosis of Liver." Discussed by Drs. Nathaniel Bowditch Potter, New York City; Albert E. Roussel, Philadelphia; C. F. Hoover, Cleveland; S. E. Munson, Springfield, Ill.; Joseph L. Miller, Chicago, and Dock.

THURSDAY, JUNE 10—AFTERNOON

Dr. McCrea read the report of Committee on Revision of Pharmacopeia. Discussed by Drs. M. I. Wilbert, Philadelphia; L. A. Conner, New York City; John F. Anderson, Washington, D. C.; W. Clayton Thrush, Philadelphia.

Dr. H. T. Ricketts, Chicago, read a paper on "Rocky Mountain Spotted Fever." Discussed by Dr. Woods Hutchinson, New York City.

Dr. Thomas D. Coleman, Augusta, Ga., read a paper on "Algid Forms of Malaria, with Report of Cases." Discussed by Drs. John A. Witherspoon, Nashville; James B. McElroy, Memphis, and Coleman.

Dr. Edward H. Goodman, Philadelphia, read a paper on "The Value of Alimentary Levulosuria in the Diagnosis of Hepatic Cirrhosis." Discussed by Drs. De Lancey Rochester, Buffalo; Williams, Rochester, and Goodman.

Dr. S. P. Beebe and Dr. W. Gilman Thompson, New York City, read a paper on "The Nature and Treatment of Anemia." Discussed by Drs. De Lancey Rochester, Buffalo; Theodore Potter, Indianapolis; Louis G. Heyn, Cincinnati; Samuel L. Miller, Chicago; Walter L. Bierring, Iowa City, Iowa, and Beebe.

Dr. Joseph H. Pratt, Boston, read a paper on "The Work of a Cooperative Hydrotherapeutic Establishment." Discussed by Drs. John A. Lichty, Pittsburg; C. W. Smith, Baltimore; Andrew MacFarlane, Albany, N. Y., and Pratt.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN

TUESDAY, JUNE 8—AFTERNOON

The Section met in Casino Hall, Steel Pier, and was called to order by the chairman, Dr. Walter P. Manton of Detroit, at 2:10 p. m. The vice-chairman, Dr. H. G. Wetherill of Denver, took the chair, and the chairman's address, on "Mental Alienation in Women and Abdomino-Pelvic Disease," was delivered by Dr. Manton.

The Chairman announced the following Nominating Committee: Drs. C. S. Bacon, Chicago; J. Wesley Bovée, Washington; W. B. Dorsett, St. Louis; Dr. F. F. Lawrence, Columbus; F. F. Simpson, Pittsburg. The committee to meet at 8:45 a. m. Wednesday, June 9.

Dr. A. E. Benjamin read a paper on "The Operation of Choice for Retrodisplacements of the Uterus." Discussed by Drs. Barrett, Bovée, Boldt, Hall, Marcy, Peterson, Stone, Fry, Cohen of Buffalo, Potter, Shoemaker and Benjamin.

Dr. Fred. H. Albee read a paper on "A Study of the Anatomy and Clinical Importance of the Sacroiliac Joint." Discussed by Drs. Frederick, Peterson, Barret, Myer Solis Cohen of Philadelphia and Wineberg of Scranton.

Drs. William S. Gardner and Emil Novak of Baltimore presented a paper on "The Endometrium and Some of Its Variations," which was read by Dr. Novak. Discussed by Drs. Marcy and Clark.

The paper by Dr. Francis D. Donoghue, Boston, on "Chronic Appendicitis with Chronic Perienteritis and Intestinal Obtruction Due to Infolding of Mucosa," was on motion of Dr. Hall referred to the Committee on Publication, for publication at their discretion, Dr. Donoghue having been present but called home.

WEDNESDAY, JUNE 9—MORNING

The Section was called to order at 9:10 a. m. by the chairman.

Dr. J. E. Welch, New York City, read a paper on "The Pathology of Eclampsia and Toxemia of Pregnancy."

Dr. Ross McPherson, New York City, read a paper on "Study of Eclampsia with Results in Two Hundred and Fifty Cases, from the Wards of the Lying-in Hospital of New York City."

These two papers were discussed by Drs. Wetherill, Cohen of Buffalo, Lawrence, Frederick, Bacon, Fry, Frederick, Peterson, Welch and McPherson.

Dr. J. Wesley Bovée, Washington, read a paper on "A Method of Complete Nephroureterectomy." No discussion.

Dr. F. F. Simpson, Pittsburg, read a paper on "Some Factors Which Contribute to Low Mortality in Abdominal Surgery." Discussed by Drs. Reed of Cincinnati, Carstens, Boldt, Bacon, Lawrence, Morris, Wetherill, McGlinn and Simpson.

Dr. John Osborn Polak, Brooklyn, read a paper on "Remote Results of Conservative Surgery of the Ovaries." Discussed by Drs. Clark, Kelly, Goldspoin, Hall, Frederick, Sponsor of Indianapolis, Harris and closed by Dr. Polak.

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WEDNESDAY, JUNE 9—AFTERNOON

The Section was called to order at 2:10 p. m. by the Chairman.

Dr. Henry D. Fry of Washington, D. C., read a paper entitled "An Ovarian Abscess Containing a Lumbricoid Worm Within the Cavity." No discussion.

Dr. Horace G. Wetherill, Denver, read a paper on "The Present Status of Irrigation and Drainage in Obstetric and Gynecologic Operations." Discussed by Drs. Golden, Ill, Jack and Wetherill.

Dr. Ellice McDonald, New York City, read a paper on "Fibromyoma of the Uterus."

Dr. E. E. Montgomery, Philadelphia, read a paper on "Enucleation of Uterine Myomata; Why and When Preferred."

These two papers were discussed by Drs. Boldt, Massey, Kelly, Chase, Tracy, Ill, Frederick, Lawrence, Montgomery and McDonald.

Dr. H. Grad, New York City, read a paper on "Ovariotomy and Myomectomy Early in Pregnancy with Full-Term Delivery." The paper was discussed by Drs. Kelly, Fry, Benjamin, Carstens and closed by Dr. Grad.

On motion and unanimous consent the rule that papers whose authors were not present when announced should be postponed to the close of the program was withdrawn in regard to the paper of Dr. Howard A. Kelly, Baltimore, which was read at this time, entitled "Curettage for Uterine Hemorrhage." Discussed by Drs. Massey, Boldt, Carstens, Fry, Shoemaker, Gardner, Novak, Grad, Boldt and Kelly.

THURSDAY, JUNE 10—MORNING

The Section was called to order at 9:15 a. m. by the Chairman.

The Nominating Committee made the following report for officers for the coming year: Chairman, Dr. John G. Clark, Philadelphia; vice-chairman, Dr. C. C. Frederick, Buffalo; secretary, Dr. C. Jeff Miller, New Orleans; delegate, Dr. Horace G. Wetherill, Denver; alternate, Dr. I. S. Stone, Washington, D. C.

Dr. Boldt moved that the Secretary cast an affirmative ballot for the gentlemen nominated, the motion was carried and the gentlemen declared elected.

Dr. G. Betton Massey, Philadelphia, offered a resolution embodying a petition to the House of Delegates for the creation of a Section on Physical Forces and Allied Agencies in Medicine and Surgery. Dr. Carstens moved the endorsement of the resolution and that it be sent to the House of Delegates. Dr. Hall seconded the motion and it was carried.

Dr. H. J. Boldt, New York City, read a paper on "Cancer of the Uterus Too Far Advanced for Radical Operation."

Dr. Walter B. Chase, Brooklyn, read a paper on "Palliative Treatment of Cancer of the Uterus."

These two papers were discussed by Drs. Massey, Carstens, Frederick, Marcy, McGlinn, Stone, Kelly, Polak, Novak, Wetherill, Bernard Cohen of Buffalo, Boldt and Chase.

Dr. W. B Dorsett, St. Louis, offered the following resolution, which was adopted:

Resolved, That a Committee of Three (of whom the delegate to the House of Delegates of this Section be one) be appointed to confer with the Committee on Public Instruction of the House of Delegates, as well as to formulate plans of campaigning against cancer, and that they report the result of their work at the next meeting of this Section.

Drs. H. G. Wetherill, Chairman; John G. Clark and Henry D. Schwartz were subsequently appointed on this committee by the Chairman.

Dr. Howard A. Kelly offered resolutions on the need of a reduction in the tariff on radium, which were referred to the House of Delegates.

Dr. I. S. Stone, Washington, read a paper on "Some Minor Gynecologic Matters Which are Often Overlooked." Discussed by Drs. Morris of New York City, Dunning of Newburg, and Martine of Utica.

Dr. Reuben Peterson, Ann Arbor, Mich., read a paper on "Tetanus Developing Twelve Days After Shortening of the Ligaments." Discussion by Drs. Dorsett, Waldo, Hutchins, Sullivan, Boldt, Hutchins, Potter, Frederick and Peterson.

Dr. J. H. Carstens, Detroit, read a paper on "The Final Word on the Stem Pessary for Dysmenorrhea, Amenorrhea, Sterility, etc." Discussed by Drs. Kelly, Jack Benjamin and Carstens.

THURSDAY, JUNE 10—AFTERNOON

The meeting was called to order at 2:20 p. m. by the Chairman.

Dr. H. S. Crossen, St. Louis, read a paper on "Conditions Simulating Early Tubal Pregnancy."

Dr. L. G. Bowers, Dayton, read a paper on "Extrauterine Pregnancy, with Especial Reference to the Proper Operative Period After Tubal Rupture, with Report of Cases." Discussed by Drs. Barrett, Schuman, McPherson, Polak, Stelwagon, Novak, Benjamin, Schwarz, Waldo, Simpson, Wetherill, Shoemaker, Boyd, Crossen and Bowers.

Dr. George R. White, Savannah, read a paper entiled "Cystocele." Discussed by Drs. Grad, Martindale of Camden, Barret of Chicago, Stone, Goldspohn and White.

A paper by Dr. D. Tod Gilliam on "An Imbricating and Coaptation Suture as a Safeguard Against Hernia" was read by title.

After a vote of thanks to the retiring Chairman, the Section was declared adjourned.

SECTION ON SURGERY

TUESDAY, JUNE 8—AFTERNOON

The Section was called to order at 2 p. m., in Casino, Steel Pier, by the Chairman, Dr. John C. Munro, who delivered an address.

The following five papers were read and discussed jointly:

C. A. Powers, Denver, "Localized Subphrenic Tuberculosis."

Emil G. Beck, Chicago, "Treatment of Tuberculous Pleuritis and Empyema."

Prof. P. L. Friedrich, Marburg, Germany, "Address on Thoracic Surgery."

Dr. Willy Meyer, New York City, "Pneumectomy with the Aid of Differential Pressure; an Experimental Study. The new type of apparatus used."

Drs. Green and Janeway, New York City, "Intrathoracic Physiologic and Technical Studies."

Discussed by Drs. DeForest Willard, Philadelphia; S. J. Meltzer, New York City; Fell, Buffalo; Robinson, Boston; Green, New York; J. B. Murphy, Chicago; Hartford, Boston; A. J. Ochsner, Chicago; Powers, Beck, Friedrich, Meyer and Janeway.

WEDNESDAY, JUNE 9—MORNING

Dr. Dudley Tait and Dr. Raymond Russ, San Francisco, read a paper on "Electric Sleep." Discussed by Drs. L. G. Robinovitch and G. E. Brewer, New York City.

The following three papers were read and discussed jointly:

Dr. W. Arbuthnot Lane, London, Eng., "The Operative Treatment of Fractures."

Dr. William Darrach, New York City, "Operative Treatment of Fractures."

Dr. E. D. Martin, New Orleans, "A Plea for the More Careful Diagnosis of Fractures and Their Treatment."

Discussed by Drs. C. L. Scudder, Boston; LeMoyne Wills, Los Angeles; P. L. Friedrich, Germany; A. J. Ochsner, Chicago; L. Freeman, Denver; Walker, New York City; J. B. Murphy, Chicago; C. A. Powers, Denver; W. L. Estes, South Bethlehem, Pa.; R. Matas, New Orleans; De F. Willard, Philadelphia; Thompson, Scranton; R. F. Weir, New York; Hoy, Ohio; J. F. Binnie, Kansas City; Lane and Darrach.

WEDNESDAY, JUNE 9—AFTERNOON

Dr. Harvey Cushing, Baltimore, delivered the Oration on Surgery, "Hypophysis Cerebri; Clinical Aspects of Hypersecretion and Hyposecretion."

Dr. A. E. Hertzler, Kansas City, Mo., read a paper on "The Pseudoperitoneum."

Dr. J. B. Deaver, Philadelphia, read a paper on "The Early Symptoms of Upper Abdominal Disease."

These two papers were discussed by Drs. W. D. Haggard, Nashville; R. Morris, New York City; A. MacLaren, St. Paul; Hertzler and Deaver.

Dr. A. J. Ochsner, Chicago, read a paper on "Pancreatitis." Dicussed by Dr. J. J. Gilbride, Philadelphia.

The following two papers were read and discussed jointly:

Dr. Stanley Stillman, San Francisco, "Hypertrophic Stenosis of the Pylorus in Infants. Report of Cases Occurring on the Pacific Coast."

Dr. J. H. Gibson and Dr. F. T. Stewart, Philadelphia, "Report of Twenty Cases of Perforated Gastric and Duodenal Ulcer."

Discussed by Drs. W. J. Mayo, Rochester, Minn.; J. C. Bloodgood, Baltimore; F. C. Shattuck, Boston, and Skinner, New York City.

THURSDAY, JUNE 10—MORNING

Dr. J. B. Murphy, Chicago, read a paper on "Joint Infections, Etiology and Pathology Demonstrated Experimentally, and Clinical Results Obtained by Treatment Based on These Experiments."

Dr. E. H. Nichols, Boston, read a paper on "Arthritis Deformans."

These two papers were discussed by Drs. A. D. Bevan, Chicago; J. L. Wiggin, East St. Louis; A. Vander Veer, Albany; DeF. Willard, Philadelphia; R. Morris, New York City; J. E. Moore, Minneapolis; J. F. Binnie, Kansas City; E. H. Nichols, Boston, and Murphy.

The report of the Anesthesia Commission was presented by Dr. W. D. Haggard.

Dr. W. B. Coley, New York City, read a paper on "The Conservative Treatment of Sarcoma of the Long Bones." Discussed by Drs. J. C. Bloodgood, Baltimore; A. D. Bevan, Chicago; H. S. Wieder, Philadelphia; J. C. Roberts, Philadelphia, and Coley.

The following three papers were read and discussed jointly:

Dr. E. S. Judd, Rochester, Minn., "The Transperitoneal Operation for the Removal of Bladder Neoplasms."

Dr. Willard Bartlett, St. Louis, "A Radical Operation for Certain Forms of Hydrocele."

Dr. V. C. Pederson, "Dilatation Treatment of Urethral Stricture."

Discussed by Drs. L. Davis, Boston; W. S. Lower, Cleveland; Watts, New York City; Block, Kansas City; J. H. Gibbon, Philadelphia; F. C. Valentine, New York; Judd, Bartlett and Pederson.

THURSDAY, JUNE 10—AFTERNOON

The Nominating Committee presented the following names, which on motion, were accepted, and the officers declared elected: Chairman, Charles H. Mayo, Rochester, Minn.; vice-chairman, Thomas Huntington, San Francisco; secretary, W. D. Haggard, Nashville; orator, Robert Abbe, New York City; delegate, Edward H. Ochsner, Chicago; alternate, J. W. D. Maury, New York City.

Dr. W. J. Mayo, Rochester, Minn., contributed a paper on "Some of the Principles Underlying Surgery of the Spleen." Discussed by Dr. A. J. Ochsner, Chicago.

The following three papers were read and discussed jointly:

Dr. Van Buren Knott, Sioux City, Ia., "The Treatment of the Appendix Stump."

Dr. LeGrand Guerry, Columbia, S. C., "Consideration of the Mortality of Appendicitis."

Dr. J. W. D. Maury, New York City, "Causes of Death in Acute Intestinal Obstruction and Kindred Conditions."

Discussed by Drs. W. D. Haggard, Nashville; Stanton, New York City; W. L. Rodman, Philadelphia; R. Morris, New York; Skinner, New York City; E. LaPlace, Philadelphia; F. F. Lawrence, Columbus; W. J. Mayo, Rochester; A. J. Ochsner, Chicago, and Maury.

FRIDAY, JUNE 11—MORNING

The Chairman announced that the name of the Section would hereafter be "Section on Surgery," and that three Vice-Chairmen would be elected; also that the following Anesthesia Committee had been appointed, consisting of members of various sections interested in this question Dr. W. D. Haggard, chairman; Dr. J. G. Mumford, Dr. H. Gifford, Dr. A. Lambert and Dr. H. Wood.

Dr. J. E. Summers, Omaha, reported a "Case of Sarcoma of the Tonsil." Discussed by Drs. M. F. Porter, Fort Wayne, Ind.; H. S. Wieder, Philadelphia, and Summers.

The following three papers were read and discussed jointly:

Dr. J. C. Stewart, Minneapolis, "The Radical Treatment of Epithelioma of the Lip."

Dr. W. L. Rodman, Philadelphia, "Method of Procedure in Mammary Neoplasms of Doubtful Nature."

Dr. J. N. Jackson, Kansas City, Mo., "Radical Operation in Mammary Cancer."

Discussed by Drs. H. S. Wieder, Philadelphia; W. H. Welch, Baltimore; W. L. Grant, Denver; E. S. Judd, Rochester, Minn.; M. F. Porter, Ft. Wayne, Ind.; J. F. Binnie, Kansas City; Smith, New York City; LeM. Mills, Los Angeles; J. C. Munro, Boston; M. Hartwig, Buffalo; Stewart, Rodman and Jackson.

SECTION ON OPHTHALMOLOGY

TUESDAY, JUNE 8—AFTERNOON

Dr. Alvin A. Hubbell, Buffalo, chairman, delivered an address on "Ophthalmologic Standards which Should be Required in General and in Special Practice."

Dr. Walter R. Parker, Detroit, read a paper on "The Visual Fields in Hysteria, a Clinical Study of Fifty Cases." Discussed by Drs E. C Ellett, Memphis; L Howe, Buffalo; Casey Wood, Chicago; G. E. de Schweinitz, Philadelphia; C. H. May, New York City, and Parker.

Dr. M. Wiener, St. Louis, read a paper on "Regeneration of the Cornea." Discussed by Drs. John Green, St. Louis; W. Zentmayer, Philadelphia; Robert L. Randolph, Baltimore; A. R. Baker, Cleveland; Miller, St. Louis; G. C. Savage, Nashville, and Wiener.

Dr. Edward Jackson, Denver, read a paper on "Scissors-Magnet Extraction of Iron from Eyeball." Discussed by Drs. W. M. Sweet, Philadelphia; W. Marple, New York City; H. Gifford, Omaha; W. H. Wilder, Chicago; E. E. Holt, Portland; Donovan, Dubuque; Robert L. Randolph, Baltimore, and Jackson.

Dr. H. Gifford, Omaha, read a paper on "Prophylaxis of Interstitial Keratitis." Discussed by Drs. Fox, Philadelphia; S. D. Risley, Philadelphia; F. H. Verhoeff, Boston; W. L. Pyle, Philadelphia; John Green, St. Louis; Miles Standish, Boston; G. H. Price, Nashville; A. R. Baker, Cleveland; A. E. Bulson, Jr., Ft. Wayne, Ind., and Gifford.

WEDNESDAY, JUNE 9—MORNING

Dr. George F. Keiper, Lafayette, Ind., described a new instrument for the measurement of astigmatism.

On motion of Dr. Edward Jackson, Denver, amended by Dr. Savage, Memphis, the Chairman appointed a committee consisting of Drs. L. Connor, Detroit, J. Thorington, Philadelphia, A. R. Baker, Cleveland, to consider and report at this meeting on the special suggestions and recommendations of the Chairman's address.

The report of Dr. Casey Wood, Chicago, chairman of the Committee on Proposed Alterations in the U. S. Pharmacopeia, was read and adopted on motion, and by separate motion of Dr. Savage, Memphis, the committee was continued.

Dr. Lee M. Francis, Buffalo, read a paper on "Isolated and Complete Paralysis of the Third Nerve of Traumatic Origin." Discussed by Wendell Reber, Philadelphia.

Dr. David W. Stevenson, Richmond, Ind., read a paper on "Unreliability of Astigmatic Fan or Clock-Dial Test." Discussed by Drs. J. Thorington, Philadelphia; F. H. Verhoeff, Boston; J. W. Park, Harrisburg, Pa.; O. Wilkinson, Washington; L. Connor, Detroit; Edward Jackson, Denver; John Green, St. Louis; W. Reber, Philadelphia; and Stevenson.

Dr. William E. Gamble, Chicago, read a paper on "Simple Fibroma of the Orbit." Discussed by Drs. George F. Keiper, Lafayette, Ind., G. O. Ring, Philadelphia.

Dr. J. A. Tenney, Boston, read a paper on "Dropsy of the Optic Nerve Sheath." Discussed by Drs. L. Webster Fox, Philadelphia; A. R. Baker, Cleveland, and Tenney.

Dr. Samuel Theobald, Baltimore, read a paper on "Reflex Aural Neuroses Caused by Eye-Strain, with Report of Cases." Discussed by Drs. Park Lewis, Buffalo, E. E. Holt, Portland; L. Howe, Buffalo; S. D. Risley, Philadelphia, and Theobald.

L. Webster Fox, Philadelphia, read a paper on "Amethyst Tinted Lenses." Discussed by Drs. Nelson M. Black, Milwaukee; Mortimer Frank, Chicago; W. L. Pyle, Philadelphia; Williams, Boston; Barton Pitts, St. Joseph, Mo.; G. Friebis, Philadelphia, and Fox.

WEDNESDAY, JUNE 9—AFTERNOON

Dr. H. F. Hansell, Philadelphia, read a paper on "Some Minor Points in the Surgery of Cataract." Discussed by Drs. H. D. Bruns, New Orleans; G. C. Savage, Nashville; W. B. Marple, New York City; L. Howe, Buffalo; Mark Stevenson, Akron, Ohio; G. O. Ring, Philadelphia; O. Tydings, Chicago; A. R. Baker, Cleveland, and A. E. Davis, New York City.

Dr. H. V. Würdemann, Seattle, Wash., read a paper on "The Expression of Cataract in Its Capsule, with Report of 40 Operations."

Dr. D. W. Greene, Dayton, Ohio, read a paper on "Expression of Cataracts in the Capsule by the Smith Method."

These two papers were discussed by Drs. Peter Callan, New York City; Arnold Knapp, New York City; Casey Wood, Chicago; W. R. Parker, Detroit; W. H. Wilder, Chicago; Percy Fridenberg, New York City; L. Webster Fox, Philadelphia; F. Allport, Chicago; M. Wiener, St. Louis; W. B. Marple, New York City; Park, Columbus, Ohio; Cooley; Mark D. Stevenson, Akron, Ohio; Malet, Dayton, Ohio, Würdemann and Greene.

S. Lewis Ziegler, Philadelphia, read a paper on "Galvano-Cautery Puncture in Ectropion and Entropion." Discussed by Drs. S. D. Risley, Philadelphia; W. Zentmayer, Philadelphia; Barton Pitts, St. Joseph, Mo.; E. E. Holt, Portland, Maine; Price and Ziegler.

Dr. R. L. Randolph, Baltimore, read a paper on "Rodent Ulcer of the Cornea." Discussed by Drs. G. E. de Schweinitz, Philadelphia; Barton Pitts, St. Joseph, Mo.; J. A. Donovan, Butte, Mont.; H. Gifford, Omaha, and Randolph.

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Dr. Casey A. Wood, Chicago, read a paper on "Epibulbar Leucosarcoma, Exenteration of the Orbit. No Recurrence at the Original Site. Death in Three Months from Metastases." Discussed by Drs. M. Black, Denver; G. F. Keiper, Lafayette, Ind.; Barton Pitts, St. Joseph, Mo.

Dr. Alexander Duane, New York City, read a paper on "The Accommodation and Donder's Curve, and the Need of Revising our Ideas Regarding Them; An Experimental Study." Discussed by Drs. Edward Jackson, Denver, and Duane.

THURSDAY, JUNE 10—MORNING

Dr. George F. Keiper, Lafayette, Ind., exhibited a modification of Brande's instrument for the measurement of astigmatism.

Dr. G. H. Savage, Memphis, exhibited and described his instrument for measuring muscle deviations.

Dr. Alexander Duane, New York City, exhibited and described his disc for testing the accommodation.

Dr. Lucien Howe, Buffalo, exhibited and described an instrument for estimating the strength of the ocular muscles.

Dr. Briggs, Ashland, Pa., exhibited and described an instrument for shortening the ocular muscles without cutting and without the use of sutures.

Dr. Lucien Howe, Buffalo, presented the report of the committee on legislation concerning opticians. On motion it was adopted. The report was as follows:

REPORT OF COMMITTEE ON LEGISLATION CONCERNING OPTICIANS

At a meeting of this section two years ago a committee was appointed to consider legislation concerning opticians. That committee made a report last year, but it was referred back for some modifications. Since then new aspects of the question have been presented for consideration. Moreover, one member of this committee has been asked to become the chairman of a committee of the section to study the ocular muscles, and another to become the chairman of a committee to study tuberculosis of the eye, both of these invitations having been accepted. The third member of the committee, Gen. George E. Sternberg, was never a member of this Section, has no special interest in the subject and accepted a place on the committee only after rather urgent solicitation and at considerable personal inconvenience.

In view of the changes required in the report, therefore, and in view of the new duties assigned to the members of this committee, and also considering that we have no right to ask for further service from the third member, the undersigned would simply report progress, and while still in sympathy with the objects to be attained, they respectfully ask that they be relieved from the duty and other members of the section be appointed in their places.

LUCIEN HOWE.
WILLIAM H. WILDER.

After considerable discussion the committee appointed to report on the recommendations contained in the Chairman's address reported as follows:

REPORT OF COMMITTEE ON CHAIRMAN'S ADDRESS

Your committee to which was referred the Chairman's address on "The Ophthalmologic Qualifications of the General Practitioner and Ophthalmologist" respectfully begs leave to recommend the following:

1. Every general practitioner should have that training in ophthalmology which will enable him to manage infectious diseases of the eye and its simple refractive defects. To obtain this qualification medical colleges should make such training obligatory and state boards of registration demand it as a condition for license.

2. Every general practitioner who desires to become an ophthalmologist should add to his training a comprehensive training in ophthalmology, experimental work in the laboratory and personal clinical experience in a hospital or private office. To insure these qualifications there should be appointed on each state board of registration at least one ophthalmologist to examine applicants for a license to practice ophthalmology.

3. If these recommendations be approved by the Section it is respectfully urged that a committee of three be appointed by the Chairman to study the subject and report its findings of the detailed measures necessary to secure trained family physicians and ophthalmologists adequate for the needs of all the people when suffering from ocular disabilities.

LEARTUS CONNOR,
J. THORINGTON,
A. R. BAKER.

The above report was adopted by the Section and the above named gentlemen were appointed on the committee provided for in the report.

The following officers were elected: Chairman, Dr. W. C. Posey, Philadelphia; vice-chairman, Dr. Hiram Woods, Baltimore; secretary, Dr. A. E. Bulson, Jr., Ft. Wayne, Ind.; delegate, Dr. T. Woodruff, Chicago.

Dr. C. F. Clark, Columbus, offered the following resolution:

Resolved, That a special committee be appointed by the Chairman to investigate and report on the so-called "Smith-Indian" operation, with special reference to the ultimate or remote condition of eyes operated on by this method as compared with other methods; this committee to report progress each year for three years.

On motion the resolution was adopted. The Chairman later appointed on that committee Drs. D. W. Greene, Dayton, chairman; Arnold Knapp, New York City; Edward Jackson, Denver; Casey Wood, Chicago, and W. R. Parker, Ann Arbor.

Dr. Arnold Knapp, New York City, read a paper on "Operative Treatment of Glaucoma by Cyclodialysis." Discussed by Drs. E. V. L. Brown, Chicago; W. H. Wilder, Chicago, and H. Gifford, Omaha.

Dr. Charles S. Bull, New York City, read a paper on "Management of Acute Hemorrhagic Glaucoma in the Presence of Advanced Arteriosclerosis." Discussed by Drs. Myles Standish, Boston; Edward Jackson, Denver; Melville Black, Denver; F. H. Verhoeff, Boston; R. L. Randolph, Baltimore, and D. W. Greene, Dayton.

Dr. Mortimer Frank, Chicago, read a paper on "Primary Hemorrhagic Glaucoma with Probable Sympathetic Inflammation." Discussed by Drs. S. D. Risley, Philadelphia; W. L. Pyle, Philadelphia; H. Gifford, Omaha; E. V. L. Brown, Chicago; G. H. Price, Nashville; F. H. Verhoeff, Boston, and Frank.

Dr. John Green, St. Louis, read a paper on "Nodular Opacity of Cornea; Etiology." Discussed by Drs. A. E. Shumway, Philadelphia; William Zentmayer, Philadelphia, and Oscar Wilkinson, Washington.

Dr. Mark D. Stevenson, Akron, O., read a paper on "Practical Importance of Hyperphoria in Prescribing Lenses for Use at Particular Distances and in Different Directions." With exhibition of instrument for testing hyperphoria. Discussed by Drs. Alexander Duane, New York City; G. H. Savage, Memphis; W. H. Roberts, Pasadena; W. C. Posey, Philadelphia; William Zentmayer, Philadelphia; E. E. Holt, Portland, Me., and Stevenson.

Dr. Lucien Howe, Buffalo, read a paper on "Tenotomy or Advancement." Discussed by Drs. F. C. Todd, Minneapolis; E. E. Holt, Portland, Me.; Alexander Duane, New York City; W. R. Broughton, New York City; G. H. Savage, Memphis, and Francis Valk, New York City.

THURSDAY, JUNE 10—AFTERNOON

The Chairman appointed on the committee on legislation concerning opticians, Drs. John C. Bossidy, Boston, chairman; A. R. Baker, Cleveland, and J. Thorington, Philadelphia.

Dr. W. H. Wilder, Chicago, moved that the officers of the Section be requested to prepare some suitable resolutions of appreciation and respect for the work of the late Dr. F. C. Hotz of Chicago, for ophthalmology and for the Section and transmit the same to his family and spread them on the minutes of the Section. The motion was carried.

On motion of Dr. Lucien Howe, Buffalo, the secretary of the Section was directed to thank General George E. Sternberg for his services on the committee on opticians.

Dr. R. L. Randolph, Baltimore, offered the following resolution, which was adopted:

Resolved, That the action of the Chairman of this section in appointing committees for the collective investigation of certain questions be hereby confirmed and authority given for the continuation of such studies as long as those committees engage actively in the work assigned to them.

The report of the Committee on Collective Investigation Concerning the Ocular Muscles was presented as printed in the presession book.

The preliminary report of the Committee for the Study of the Relation of Tuberculosis to Certain Diseases of the Eye was presented.

Dr. George E. de Schweinitz, Philadelphia, read a paper on "Operative Treatment of Papilledema Dependent on Increased Intracranial Tension." Discussed by Drs. James Bordley, Jr., Baltimore, and Holloway, Philadelphia.

Dr. Charles H. Frazier, Philadelphia, read a paper on "Surgical Aspects of Cerebral Decompression." Discussed by Drs. Sterer, Pittsburg; R. L. Randolph, Baltimore; William H. Spiller, Philadelphia; W. H. Wilder, Chicago; A. E. Bulson, Jr., Ft. Wayne; Randall, Philadelphia; Emerson; Black, Milwaukee; de Schweinitz, Philadelphia, and Frazier.

On the statement of Dr. A. E. Bulson, the secretary, as to the inadequacy of the facilities offered at the meeting place of the Section, the Section adopted a resolution that the Trustees of the American Medical Association should be requested to furnish all proper facilities and appliances for carrying on the work of the Section.

Dr. G. S. Derby, Boston, and Dr. T. H. Ayer, Westboro, Mass., presented a paper on "A Clinical Investigation on the Relationship of Tuberculosis to Certain Diseases of the Eye." Discussed by Drs. W. H. Wilder, Chicago; W. C. Posey, Philadelphia, and Derby.

Dr. F. H. Verhoeff, Boston, read a paper on "Neuropathic Keratitis and Some Allied Conditions, with Special Reference to Treatment." Discussed by Drs. William Zentmayer, Philadelphia, and Verhoeff.

Dr. L. D. Brose, Evansville, Ind., read a paper on "Lachrymal Gland Tumors."

Dr. de Schweinitz moved a vote of thanks to the officers of the Section, and after the introduction of the new officers the meeting adjourned.

SECTION ON LARYNGOLOGY AND OTOLOGY

TUESDAY, JUNE 8—AFTERNOON

The meeting was called to order at 2:30 p. m., the President, Dr. W. Sohier Bryant, New York City, presiding.

In the absence of Dr. Otto T. Freer, Chicago, member of the Executive Committee, the chair appointed Dr. Barnhill, Indianapolis, to serve in his place.

Dr. W. Sohier Bryant, New York, delivered the Presidential address.

Dr. John O. Roe, Rochester, read a paper on "Treatment of Palatopharyngeal Adhesions, New Operation for Their Successful Relief." Discussed by Drs. W. E. Casselberry, Chicago; Willis S. Anderson, Detroit; Cullen F. Welty, San Francisco; Scholtz, St. Louis; Dunbar Roy, Atlanta; Sidney Yankhauer, New York City; W. W. Carter, New York City; George W. Mitchell, Baltimore; and Roe.

Dr. A. H. Miller, Providence, read a paper on "A New and Satisfactory Apparatus for Etherization in Operations About the Face and Upper Air Passages." Discussed by Drs. Joseph A. Stucky, Lexington, Ky.; Kate W. Baldwin, Philadelphia; John O. Roe, Rochester; Cullen F. Welty, San Francisco; Sylvan Rosenheim, Baltimore; Rupert, Philadelphia; Joseph A. White, Richmond; Burt Russell Shurly, Detroit, and Miller.

Dr. Richard H. Johnson, Baltimore, read a paper on "Benign Tumors of the Turbinated Bodies Clinically and Pathologically Considered." Discussed by Drs. Sylvan Rosenheim, Baltimore; George Frederick Keiper, Lafayette, Ind.; James E. Logan, Kansas City; Lobar, New York City; Scholtz, St. Louis; Jacques Holinger, Chicago; Emil Mayer, New York City; Stanley Miner, Detroit; T. W. Corwin, Newark; W. E. Sauer, St. Louis; Lee Cohen, Baltimore; B. Alexander Randall, Philadelphia, and Johnson.

Dr. William W. Carter, New York, read a paper on "Correction of Nasal Deformities." Discussed by Drs. John O. Roe, Rochester; Cullen F. Welty, San Francisco; R. H. Good, Chicago, and Carter.

Dr. W. E. Casselberry, Chicago, exhibited an instrument for tamponing the nasal fossæ and a self-retaining quadrivalvular nasal speculum.

WEDNESDAY, JUNE 9—MORNING

The following papers were read and discussed as a "Symposium on Faucial Tonsils:"

Dr. C. M. Robertson, Chicago, "Anatomic and Physiologic Considerations Relating to the Faucial Tonsils."

Dr. Emil Mayer, New York City, "Conditions in the Faucial Tonsils Which Call for Operative Interference."

Dr. Norval H. Pierce, Chicago, "A Discussion of the Methods of Operating on the Faucial Tonsils."

Dr. Francis R. Packard, Philadelphia, "General Anesthesia for Tonsil Adenoid Operations."

Dr. Lee Cohen, Baltimore, "Postoperative Tonsillar Bleeding: Its Surgical Control, with Mention of Cases."

Discussed by Drs. Frank C. Todd, Minneapolis; Chevalier Q. Jackson, Pittsburg; F. Gurney Stubbs, Chicago; W. E. Casselberry, Chicago; Cullen F. Welty, San Francisco; George L. Richards, Fall River, Mass.; John F. Barnhill, Indianapolis; Mark D. Stevenson, Akron, O.; Joseph H. Abraham, New York City; P. Friedenberg, New York City; F. E. V. Shore, Des Moines; Oliver Tydings, Chicago; Oscar Wilkinson, Washington, D. C.; W. W. Carter, New York City; Sidney Yankhauer, New York City; Joseph A. White, Richmond; Dennis J. McDonald, New York City, Norton L. Wilson, Elizabeth, N. Y., and the essayists.

WEDNESDAY, JUNE 9—AFTERNOON

Dr. Charles R. C. Borden, Boston, read a paper on "Fracture of the Base of the Skull." Discussed by Drs. John F. Barnhill, Indianapolis; Cullen F. Welty, San Francisco; E. A. Crockett, Boston; Jacques Holinger, Chicago; John J. Kyle, Indianapolis; S. MacCuen Smith, Philadelphia; John M. Foster, Denver; George E. Shambaugh, Chicago; B. Alexander Randall, Philadelphia; Glogan, New York City; Davis, New York City; Cullen F. Welty, San Francisco, and Borden.

Dr. C. G. Coakley, New York City, read a paper on "Diseased Conditions Involving the Nasal Accessory Sinuses in Which an External Operation Is Indicated."

Dr. David B. Kyle, Philadelphia, read a paper on "Occurrence of Acute Inflammation of the Nasal Accessory Sinuses, Symptoms and Treatment."

Dr. H. W. Loeb, St. Louis, read a paper on "Suppurative Accessory Sinus Diseases in Which an Intranasal Operation Is Indicated."

These three papers were discussed by Drs. Ross H. Skillern, Philadelphia; Joseph A. Stucky, Lexington, Ky.; R. H. Good, Chicago; Burt Russell Shurly, Detroit; P. Friedenberg, New York City; G. H. Makuen, Philadelphia; W. H. Schultz, St. Louis; Charles M. Robertson, Chicago; E. A. Crockett, Boston; G. M. Case, Elmira, N. Y.; Cullen F. Welty, San Francisco; Coakley, Kyle and Loeb.

Dr. William R. Murray, Minneapolis, read a paper on "Presence of Vincent's Spirillum and *Bacillus Fusiformis* in Pseudomembranous Anginas." Discussed by Drs. Frank C. Todd, Minneapolis; Samuel Iglauer, Cincinnati; E. H. Porter, Tiffin, Ohio; Joseph A. Stucky, Lexington, Ky., and Murray.

THURSDAY, JUNE 10—MORNING

The following officers were elected: Chairman, Chevalier Jackson, Pittsburg; vice-chairman, George F. Cott, Buffalo; secretary, George E. Shambaugh, Chicago; delegate, D. Braden Kyle, Philadelphia; executive committee, W. Sohier Bryant, New York City; S. MacCuen Smith, Philadelphia, and H. W. Loeb, St. Louis.

Dr. George F. Cott, Buffalo, read a paper on "Two Cases of Infectious Labyrinthitis." Discussed by Drs. Jacques Holinger, Chicago; S. MacCuen Smith, Philadelphia; George E. Shambaugh, Chicago; Glogan, New York; J. F. Fairbairn, Buffalo; B. Alexander Randall, Philadelphia, and Drs. Kerrison of New York and Cott of Buffalo.

Dr. Samuel Iglauer, Cincinnati, read a paper on "X-Ray Examination of the Mastoid." Discussed by Drs. Sydney Lange, Cincinnati; W. H. Schultz, St. Louis; Jacques Holinger, Chicago; B. Alexander Randall, Philadelphia; Cullen F. Welty, San Francisco; Frank Allport, Chicago; S. MacCuen Smith, Philadelphia, and Iglauer.

Dr. A. B. Duel, New York City, read a paper on "Symptoms of the Intracranial Complications Occurring in Chronic Suppurative Otitis Media."

Dr. B. A. Randall, Philadelphia, read a paper on "Indications for Tympanomastoid Exenteration in Cases of Chronic Suppurative Otitis Media Where There Is Absence of Evidence of an Intracranial Complication."

Dr. Eugene A. Crockett, Boston, read a paper on "Conditions Which Constitute Contraindications to the Tympanomastoid Exenteration in Cases of Chronic Suppurative Otitis Media."

These three papers were discussed by Drs. S. MacCuen Smith, Philadelphia; Joseph A. Stucky, Lexington, Ky.; W. H. Schultz, St. Louis; Cullen F. Welty, San Francisco; E. C. Ellett, Memphis; Amos R. Solenberger, Colorado Springs; George E. Shambaugh, Chicago; Samuel L. Ledbetter, Birmingham; Duel, Randall and Crockett.

THURSDAY, JUNE 10—AFTERNOON

Dr. Daniel W. Layman, Indianapolis, exhibited a new tonsil knife with a guard and pillar retractor attachment.

Dr. Henry Hager Martin, Savannah, exhibited a modification of the Kratzmüller snare.

Dr. Hays, New York City, demonstrated his pharyngoscope.

Dr. Chevalier Jackson, Pittsburg, presented a paper on "A Ten-Minute Demonstration of Bronchoscopy," which, in his absence, was read by Dr. Joseph A. Stucky, Lexington, Ky., who also exhibited skiagrams and drawings. Discussed by Drs. Richard Hall Johnson, Baltimore; Thomas, Philadelphia; Burt Russell Shurly, Detroit; W. H. Schutz, St. Louis, and Fletcher, Chicago.

Dr. E. P. Fowler, New York City, read a paper on "The Physiology of the Eustachian Tube." Discussed by Drs. Jacques Holinger, Chicago; George E. Shambaugh, Chicago, and Fowler.

Mr. John D. Wright, New York City, read a paper on "The Deaf Child and the Physician." Discussed by Drs. S. Mac-

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Cuen Smith, Philadelphia; Arthur B. Duel, New York; Dennis J. McDonald, New York; Jacques Holinger, Chicago, and Wright.

By motion of Dr. Delevan, a committee of three was appointed, consisting of Drs. John L. Adams, New York City; Dunbar Roy, Atlanta, and R. B. Shurly, Detroit, to draft resolutions that may be helpful in arousing greater interest in the training of the deaf in public schools. The motion as amended was carried.

By motion the Section voted an expression of thanks to Mr. Wright for his presentation of the subject.

The Section then adjourned.

SECTION ON PREVENTIVE MEDICINE AND PUBLIC HEALTH

TUESDAY, JUNE 8—AFTERNOON

The Section was called to order at 2:30 p. m., in the First Baptist Church by the chairman, Dr. J. H. White, New Orleans. In the absence of the secretary, Dr. Marshall Price, Baltimore, was designated secretary *pro tem.*

The Chairman read his address.

Dr. J. N. McCormack, Bowling Green, Ky., delivered his remarks *extempore* on "The Importance of Consolidation of all the National Health Associations Into the Section on Hygiene and Sanitary Science with the Purpose of Making It What It Should Be."

Dr. H. M. Bracken, St. Paul, Minn., read a paper on "The Relation of the Medical Profession to Preventive Medicine."

These two papers were discussed by Drs. George M. Sternberg, Washington; William Porter, St. Louis; Marshall Price, Baltimore; Henry B. Hemenway, Evanston, Ill.; W. A. Evans, Chicago, and Bracken.

Dr. Marshall Price offered the following resolution, which was passed and referred to the House of Delegates:

Resolved, That the Chairman appoint a committee of three to consider means of cooperation with the American Public Health Association and the Conference of State and Provincial Boards of Health, and that in addition to these three members the Chairman be also *ex officio* a member.

Dr. Hemenway offered a resolution relative to the amount of time devoted to sanitary science in medical colleges. This appeared in the minutes of the House of Delegates, THE JOURNAL, June 19, 1909, p. 2083.

Dr. Hemenway also offered the following resolution, which was passed and referred to the House of Delegates:

Resolved, That the representative on Hygiene and Sanitary Science in the House of Delegates be instructed to ask that a permanent council on sanitary science be appointed by the American Medical Association and that a special department on sanitary science be regularly maintained in THE JOURNAL of the Association under supervision of this council.

Resolved, That the Association be requested to appropriate a suitable sum of money for the use of the council on sanitary science.

Dr. S. A. Knopf, New York City, read a paper on "A New Type of Phthisiophobia." The paper was received without discussion.

WEDNESDAY, JUNE 9—AFTERNOON

Dr. Harry C. Sharp, Indianapolis, read a paper on "Vasectomy as the Means of Preventing Procreation in the Defectives." Discussed by Drs. Liston H. Montgomery, Chicago; Ferd. C. Valentine, New York City; W. Forrest Dutton, Walker's Mills, Pa.; Woods Hutchinson, New York City; C. A. Rosenwasser, Newark, N. J.; George N. Jack, Buffalo; J. N. Hurty, Indianapolis, and Sharp.

Dr. W. A. Evans, Chicago, read a paper on "Lake Michigan Water for Drinking Purposes."

Dr. Harold B. Wood, Philadelphia, read a paper on "The Economic Value of Protecting the Water Supplies."

These two papers were discussed by Drs. W. K. Jaques, Chicago; Liston H. Montgomery, Chicago; W. Forrest Dutton, Walker's Mills, Pa.; Seneca Egbert, Philadelphia; Marshall Langton Price, Baltimore; John S. Fulton, Baltimore; Arnold, U. S. Navy; F. W. Sell, Rahway, N. J.; J. H. White, New Orleans; Evans and Wood.

THURSDAY, JUNE 10—MORNING

The following officers were elected: Chairman, Dr. J. N. Hurty, Indianapolis; vice-chairman, Dr. C. F. Williams, Columbia, S. C.; secretary (three years), Dr. M. Langton Price, Baltimore; delegate, Dr. J. H. White, New Orleans; alternate, Dr. C. L. Wheaton, Chicago; orator, Dr. Seneca Egbert, Philadelphia.

The Chairman, empowered by a motion offered by Dr. Henry B. Hemenway, Evanston, Ill., appointed Drs. H. M. Bracken, W. A. Evans and Seneca Egbert a committee to cooperate for one year with the Committee on Legislation, through its bureau.

Dr. Francis H. Slack, Boston, was, on the suggestion of Dr. H. M. Bracken, St. Paul, appointed secretary of the Section in the temporary absence of Dr. Price, acting secretary.

Dr. John W. Kerr read a paper conjointly by himself and Dr. J. W. Stimson: "The Prevalence of Rabies in the United States." Discussed by Drs. H. M. Bracken, St. Paul; W. A. Evans, Chicago; W. M. Brumby, Austin, Tex.; whereupon Chairman White, before absenting himself temporarily, vacated the chair in favor of Dr. Bracken. Additional discussants were Drs. John F. Anderson, U. S. P. H. and M.-H. S.; W. Forrest Dutton, Walker's Mills, Pa.; Gates, U. S. Navy; Kerr; W. H. Sanders, Mobile, Ala.; J. N. Hurty, Indiana; Liston H. Montgomery, Chicago, Ill.; Martin Friedrich, Cleveland, Ohio; William Litterer, Nashville, Tenn.; A. C. Abbott, Philadelphia; Guiteras, Havana, Cuba.

Dr. Price, acting secretary, adverting to his election, during his absence, as secretary for three years, gave notice that he could not serve for more than one year, ensuing.

Dr. W. Forrest Dutton, Walker's Mills, Pa., read a paper on "Insect Carriers of Typhoid Fever."

Dr. Willard J. Stone, Toledo, Ohio, read a paper on Typhoid Immunity and Antityphoid Inoculations."

Dr. L. L. Lumsden, U. S. P. H. and M.-H S., read a paper on "Epidemiologic Status of Typhoid Fever."

These three papers were discussed by Drs. George M. Sternberg, Surgeon General, U. S. Army; Henry B. Hemenway, Evanston, Ill.; Guiteras, Havana, Cuba; A. C. Abbott, Philadelphia; Liston H. Montgomery, Chicago; Seneca Egbert, Philadelphia; J. N. Hurty, Indianapolis; Freeman, Virginia; Russell, U. S. Army; J. B. Bullitt, University, Miss.; Gardiner T. Swartz, Providence, R. I.; Martin Friedrich, Cleveland, Ohio; H. M. Bracken, St. Paul; Dutton and Lumsden.

Two resolutions were adopted and referred to the House of Delegates: One offered by Dr. W. M. Brumby, Austin, Tex., seconded by Dr. Gardner T. Swartz, Providence, R. I., providing that all county, district and other local medical societies be requested to hold annually one or more open meetings to which the public shall be invited; the other, offered by Dr. John S. Fulton, Baltimore, seconded by Dr. Price, concerning the collection of vital statistics. [Action by the House of Delegates on these matters is recorded on page 2083 of THE JOURNAL, June 19.]

THURSDAY, JUNE 10—AFTERNOON

Dr. Seale Harris, Mobile, Ala., read a paper on "The Prevention of Malaria." Discussed by Drs. Marshall Langton Price, Baltimore; Henry B. Hemenway, Evanston, Ill.; W. Forrest Dutton, Walker's Mills, Pa.; Guiteras, Havana, Cuba; J. N. Hurty, Indianapolis; Seneca Egbert, Philadelphia; J. R. Kean, Havana, Cuba; Liston H. Montgomery, Chicago; J. H. White, New Orleans; Neale, Chicago; C. F. Williams, Columbia, S. C., and Harris.

Dr. Myer Solis Cohen, Philadelphia, read a paper on "The Notification to the Local Health Authorities of Cases of Abortion and Miscarriage." Discussed by Drs. W. Forrest Dutton, Walker's Mills, Pa.; Marshall Langton Price, Baltimore; J. N. Hurty, Indianapolis; Seneca Egbert, Philadelphia; W. M. Brumby, Austin, Tex.; C. H. Jones, Baltimore; Henry B. Hemenway, Evanston, Ill., and Cohen.

A resolution of regret was adopted concerning the unavoidable absence of Dr. Lewis, ex-chairman of the Section, with a request to the secretary that he communicate the resolution of regret to Dr. Lewis and the wish for his speedy recovery.

The written resignation, through illness of Dr. S. T. Armstrong as secretary for 1910 and 1911, the unexpired years of his term, was read and on motion accepted.

On motion of Dr. W. Forrest Dutton, Walker's Mills, Pa., the Section passed a vote of thanks to Dr. Armstrong for his services, with instructions that same be forwarded to him.

Dr. Francis Dowling, Cincinnati, read a paper on "The French Tobacco Factory at Issy, near Paris: Hygienic Notes." Discussed by Drs. W. Forrest Dutton and Dowling.

Dr. J. H. White, chairman, appointed Drs. Henry M. Bracken of Minnesota and Marshall Langton Price of Maryland as the two members of this Section to act in conjunction with the chairmen of three of the standing committees of the association in arranging for permanent legislation in the matter of having a council.

On motion of Dr. Liston H. Montgomery, Chicago, the Section passed a vote of thanks to the retiring chairman, Dr. J. H. White, for his courtesy and painstaking care and efficiency in the discharge of his functions; whereupon the Section adjourned, *sine die*.

SECTION ON NERVOUS AND MENTAL DISEASES

TUESDAY, JUNE 8—AFTERNOON

The meeting was called to order by the chairman, M. Allen Starr, New York City, who then read his address.

Sir James Grant of Ottawa, Can., addressed the Section on the subject of the Chairman's address on the nervous system.

Dr. D'Orsay Hecht, Chicago, read a paper on "Tumors of the Hypophysis." Discussed by Drs. Harvey Cushing, Baltimore; Maximilian Herzog, Chicago; George A. Moleen, Denver; William G. Spiller, Philadelphia; Sir James Grant, Ottawa, Can.; Hugh T. Patrick, Chicago; Julius Grinker, Chicago, and Hecht.

Dr. Theodore Diller and Dr. O. Gaub, Pittsburg, read a paper on "Successful Removal of a Cerebellar Tumor." Discussed by Drs. B. Sachs, New York City; Max Mailhouse, New Haven; George B. Moleen, Denver; B. R. Tucker, Richmond, Va.; T. U. McKennon, Pittsburg, and Diller.

Dr. William G. Spiller, Philadelphia, read a paper on "Brain Tumors."

Dr. T. H. Weisenburg, Philadelphia, read a paper on "Symptomatology of Tumors of the Posterior Portion of the Pons."

These two papers were discussed by Dr. Max Nonne, Hamburg, Germany; B. Sachs, New York City; Julius Grinker, Chicago; Theodore Diller, Pittsburg; Frank Woodbury, Philadelphia; James J. Putnam, Boston; Hugh T. Patrick, Chicago; D'Orsay Hecht, Chicago; Philip Zenner, Cincinnati; M. Allen Starr, New York City; Spiller and Weisenburg.

WEDNESDAY, JUNE 9—MORNING

In the absence of Dr. Prince, Dr. Wolfstein was appointed member of the Executive Committee, the committee now consisting of Dr. Sinkler, Dr. Weisenburg and Dr. Wolfstein.

Dr. B. Sachs, New York City, read a paper on "The Wassermann Reaction, in Its Relation to Diseases of the Central Nervous System."

Dr. Max Nonne, Hamburg, Germany, read a paper on "The Practical Value of Lymphocytosis and the Globulin Reaction and the Complement Finding Reaction for Neurology."

Dr. Hideyo Noguchi, New York City, read a paper on "Serodiagnosis of Syphilis."

Dr. E. Castelli, New York City, read a paper on "The Wassermann Reaction."

These four papers were discussed by Drs. William J. Butler, Chicago; Frank E. Fox, Fulton, N. Y.; Jackson S. Wolf, St. Louis; Maximilian Herzog, Chicago, and Sachs.

WEDNESDAY, JUNE 9—AFTERNOON

The Chairman appointed Drs. Tomlinson, Sinkler and Wolfstein as a committee on nomination of officers.

Motion carried referring application for membership of Dr. W. A. White, of Washington, D. C., to Executive Committee.

Motion carried that Drs. B. Sachs, J. H. McBride and Morton Prince be appointed a committee to investigate the relation of public schools to health, committee to report at the meeting in 1910.

Dr. Hugh T. Patrick, Chicago, read a paper on "Facial Neuralgia Treated by Deep Injections of Alcohol; Seventy-five Cases." Discussed by Drs. D'Orsay Hecht, Chicago; B. R. Tucker, Richmond, Va.; C. L. Dana, New York, and Patrick.

Dr. James D. Putnam, Boston, read a paper on "A Side Light on the Syphilitic Etiology of Tabes." Discussed by Drs. C. L. Dana, New York City; F. W. Langdon, Cincinnati; C. C. C. Hersman, Pittsburg; E. D. Fisher, New York City; Julius Grinker, Chicago; A. C. Brush, Brooklyn; M. Allen Starr, New York City, and Putnam.

Dr. Charles L. Dana, New York City, read a paper on "The syndrome of Thalamus Hemorrhage." Discussed by Drs. Hugh T. Patrick, Chicago; H. A. Tomlinson, St. Peter, Minn.; Julius Grinker, Chicago, and Dana.

Dr. William A. Jones, Minneapolis, read a paper on "Report of Two Cases of Probable Spinal Cord Lesion Following Pasteur Treatment." Discussed by Drs. James J. Putnam, Boston, and Arthur S. Hamilton, Minneapolis.

Dr. E. D. Fisher, New York City, read a paper on "Optic Atrophy in Tabes; a Diagnostic Symptom in the Differential Diagnosis from General Paresis." Discussed by Drs. Charles K. Mills, Philadelphia; C. B. Burr, Flint, Mich.; George A. Moleen, Denver, and Fisher.

Dr. Charles W. Burr, Philadelphia, read a paper on "Muscular Effort in the Non-paralyzed Extremity on Attempting to Move the Paralyzed Extremity in Hemiplegia." Discussed by Drs. Julius Grinker, Chicago; Howell T. Pershing, Denver; C. F. Hoover, Cleveland, and Burr.

Dr. J. Ramsey Hunt, New York City, read a paper on "The Paralytic Complications of Herpes Zoster." Discussed by Drs. James A. Patterson, Colorado Springs, Colo.; Howell T. Pershing, Denver, and Hunt.

Dr. J. Madison Taylor, Philadelphia, read a paper on "Treatment of Occupation Neurosis and Neuritis in the Arms."

THURSDAY, JUNE 10—MORNING

The following officers of the Section were elected for the ensuing year: Chairman, Dr. Theodore Diller, Pittsburg; secretary, William A. Jones, Minneapolis; delegate, M. Allen Starr, New York City, with power to appoint alternate.

A motion carried recommending Dr. William A. White of Washington, D. C., to the House of Delegates for associate membership in this Section.

Dr. A. S. Hamilton, Minneapolis, read a paper on "The Effect of Intercurrent Disorders on Pre-existing Epilepsy." Discussed by Drs. Augustus A. Eshner, Philadelphia; M. L. Perry, Parsons, Kans., and Hamilton.

Dr. Charles K. Mills, Philadelphia, read a paper on "Simulated Insanity." Discussed by Drs. Alfred Gordon, Philadelphia; T. Diller, Pittsburg; L. L. Uhls, Ossawotomie, Kans.; Pearce Bailey, New York City; F. W. Langdon, Cincinnati; George A. Moleen, Denver; Carlos F. MacDonald, New York City, and Mills.

Dr. Pearce Bailey, New York City, read a paper on "The Practical Value of the Association Experiment." Discussed by Drs. A. C. Brush, Brooklyn; Max Mailhouse, New Haven; M. Allen Starr, New York City, and Bailey.

Dr. H. A. Tomlinson, St. Peter, Minn., read a paper on "A Clinical Study of a Series of Cases of Insanity." Discussed by Drs. T. Diller, Pittsburg, and Tomlinson.

Dr. Julius Grinker, Chicago, read a paper on "Diagnosis of Spinal Cord Tumors, with Report of a Case Operated on." Discussed by Drs. Pearce Bailey, New York City; Max Mailhouse, New Haven; Charles W. Hitchcock, Detroit; M. Allen Starr, New York City, and Grinker.

Dr. Alfred Gordon, Philadelphia, read a paper on "Medical vs. Legal Responsibility." Discussed by Drs. Charles W. Hitchcock, Detroit; A. C. Brush, Brooklyn, and Howell T. Pershing, Denver.

THURSDAY, JUNE 10—AFTERNOON

Dr. L. Pierce Clark, New York City, read a paper on "Some Modern Problems in the Care and Treatment of Mental Defectives." Discussed by Drs. M. Allen Starr, New York City; H. A. Tomlinson, St. Peter, Minn.; William A. Jones, Minneapolis; E. E. Gaver, Columbus, Ohio; A. C. Brush, Brooklyn, and Clark.

Dr. A. C. Brush, Brooklyn, read a paper on "A Study of the Traumatic Insanities." Discussed by Drs. M. Allen Starr, New York City, and Brush.

Dr. E. E. Gaver, Columbus, Ohio, read a paper on "Traumatic Neuroses; with Report of Cases." Discussed by Drs. A. C. Brush, Brooklyn; G. T. Harding, Columbus, Ohio, and Gaver.

Dr. W. R. Dunton, Towson, Md., read a paper on "The Responsibility of Physicians in Cases Which Menace Public Safety." No discussion.

Dr. J. E. Goldthwaite, Boston, read a paper on "Some Points of Contact Between Neurology and Orthopedic Surgery." Discussed by Drs. M. Allen Starr, New York City; T. Diller, Pittsburg; Robert L. Pitfield, Germantown, Pa.; William A. Jones, Minneapolis, and Goldthwaite.

SECTION ON STOMATOLOGY

TUESDAY, JUNE 8—AFTERNOON

Address of the President, Dr. Edward C. Briggs, Boston. Discussed by Drs. Brown, Milwaukee, and Jackson, Atlantic City.

Dr. Thomas L. Gilmer, Chicago, read a paper on "Conservative Surgery for Treatment of Tumors of Mandible." Discussed by Drs. Edward C. Briggs, Boston; George V. I. Brown, Milwaukee, and Rhein, New York.

Dr. E. Mather Sill, New York City, read a paper on "A Study of Malnutrition in the School Child." Discussed by Drs. Eugene Talbot, Chicago; W. C. Wendell, Milwaukee; E. A. Bogue, New York City; Rhein, New York City; Zentler, New York City; G. V. I. Brown, Milwaukee; Fisher, New York City, and E. A. Bogue, New York City.

WEDNESDAY, JUNE 9—MORNING

Dr. F. L. Stanton, New York City, read a paper on "The Rôle of the Teeth in Respiration." Discussed by Drs. E. A. Bogue, New York City; Eugene Talbot, Chicago; G. V. I. Brown, Milwaukee; Edward C. Briggs, Boston; Rhein, New York City, and Schamberg, New York City.

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Dr. Alphonse Irwin, Camden, N. J., read a paper on "Oral Prophylaxis." Discussed by Drs. Zentler, New York City, and E. A. Bogue, New York City.

Dr. G. Hudson-Makuen, Philadelphia, read a paper on "The Tonsils and the Teeth." Discussed by Drs. F. L. Stanton, New York City; Schamberg, New York City; Charles K. Teter, Cleveland; G. V. I. Brown, Milwaukee; E. A. Bogue, New York City, and Eugene Talbot, Chicago.

Moved and seconded that Dr. Gilmer's paper be reread in its regular order on the program, on account of the small audience present when it was read. Carried. Dr. Gilmer refused to reread it, on the ground that it was to be published later, and it was not fair to take up the time of the others on the program.

WEDNESDAY, JUNE 9—AFTERNOON

Dr. G. Lenox Curtis, New York City, read a paper on "Report of Two Tertiary Cases." No discussion.

Dr. Arthur H. Dray, Philadelphia, read a paper on "General Therapeutics and Surgery in Dentistry." Discussed by Drs. Rhein, New York City; W. E. Fisher, New York City; Powers, Providence, R. I., and Allen, New Zealand.

Dr. W. Wayne Babcock, Philadelphia, read a paper on "The Treatment of Extreme Degrees of Malocclusion of the Teeth by Operation on the Ramus of the Inferior Maxillary Bone." Discussed by Drs. G. V. I. Brown, Milwaukee; McCurdy, Pittsburg; Schamberg, New York City; Nyman, Chicago, and E. A. Bogue, New York City.

Dr. Charles K. Teter, Cleveland, read a paper on "A Summary of 13,000 Nitrous Oxid and Oxygen Anesthetics."

Dr. L. G. Noel, Nashville, Tenn., read a paper on "Anesthetics for Dental Surgery."

These two papers were discussed by Drs. Eugene Talbot, Chicago; Küsel, Philadelphia; S. L. McCurdy, Pittsburg; Nyman, Chicago; Rhein, New York City, and Babcock, Philadelphia.

THURSDAY, JUNE 10—MORNING

The following officers were elected: Chairman, Dr. Thomas Gilmer, Chicago; vice-chairman, Dr. J. G. Sharp, San Francisco; secretary, Dr. Eugene S. Talbot, Chicago; delegate, Dr. George V. I. Brown, Milwaukee; alternate, Dr. Stewart L. McCurdy, Pittsburg.

Dr. Jos. Arkövy, Budapest, Hungary, was unanimously elected as an honorary member.

Dr. Fred. Hussey, Providence, R. I., read a paper on "Trifacial Neuralgia." Discussed by Drs. Eugene Talbot, Chicago; Rhein, New York City; Powers, Providence, R. I.; Schamberg, New York City; W. C. Wendell, Milwaukee, and E. A. Bogue, New York City.

Dr. E. A. Bogue, New York City, read a paper on "A Number of Cases in Which the Nasal Sinuses Have Been Enlarged by Orthodontia in Children." Discussed by Drs. Eugene Talbot, Chicago; Rhein, New York City; G. V. I. Brown, Milwaukee, and Zentler, New York City.

Dr. Robert T. Oliver, West Point, read a paper on "A Method of Treating Mandibular Fractures." Discussed by Drs. Schamberg, New York City; Powers, Providence, R. I.; G. V. I. Brown, Milwaukee; Rhein, New York City; Fisher, New York City, and McCurdy, Pittsburg.

THURSDAY, JUNE 10—AFTERNOON

Dr. G. E. Pfahler, Philadelphia, read a paper on "Dental Roentgenology." Discussed by Drs. Schamberg, New York City; Blaine; Dray, Philadelphia; Teter, Cleveland; Zentler, New York City, and McCurdy, Pittsburg.

Dr. H. H. Germain, Boston, read a paper on "Osteomyelitis of the Jaw." Discussed by Drs. G. V. I. Brown, Milwaukee; Eugene Talbot, Chicago; McCurdy, Pittsburg; Schamberg, New York City, and Robert T. Oliver, West Point, N. Y.

Dr. G. V. I. Brown, Milwaukee, read a paper on "The Surgery of Cleft Palate." Discussed by Drs. Oliver, West Point; McCurdy, Pittsburg; Germain, Boston, and Schamberg, New York City.

Dr. R. R. Andrews, Cambridge, Mass., read a paper on "Enamel and Its Vitality." No discussion.

Dr. Brown asked that the Committee on Vital Statistics be continued for another year.

Dr. Schamberg presented a resolution, which was adopted, which requested the House of Delegates to recommend to state and municipal authorities the establishment of free dental clinics for the poor.

Dr. Bogue presented a resolution to inform the Section of Hygiene of the Mouth of the Fifth International Congress, which is to meet in Berlin in August, that this Section has expressed itself in favor of the creation and support by the state and municipalities of free dental clinics. Adopted.

SECTION ON DISEASES OF CHILDREN

TUESDAY, JUNE 8—AFTERNOON

The Section was called to order at 2:30 p. m. by the chairman, Dr. Thomas S. Southworth, New York City.

Dr. Thomas S. Southworth, New York City, read the chairman's address, "The Field for Prophylaxis Among Children."

In the absence of Dr. J. Ross Snyder, Birmingham, Ala., the Chairman appointed Dr. Samuel W. Kelley, of Cleveland, to fill his place on the Executive Committee.

Dr. Walter Lester Carr, New York City, read a paper on "Transitory Urinary Findings, Associated with Some Diseases of Childhood." Discussed by Drs. John Lovett Morse, Boston, and Frank S. Churchill, Chicago, and Carr.

Dr. John Ruhräh, Baltimore, read a paper on "Food Intoxication in Childhood." No discussion.

Dr. I. A. Abt, Chicago, presented a paper on "Infantile Eczema. Some Recent Views Concerning Its Pathology and Etiology." In Dr. Abt's absence his paper was, on motion, read by Dr. W. W. Butterworth. Discussed by Dr. D. E. English, Milburn, N. J.

Dr. W. W. Butterworth, New Orleans, read a paper on "Hair-Ball or Hair Cast of the Stomach and Its Occurrence in Children." Discussed by Dr. John Ruhräh, Baltimore; Dr. R. D. Gilbert, Louisville, Ky., and Butterworth.

Dr. Rowland Godfrey Freeman, New York City, read a paper on "Adenoid Hypertrophy During the First Year of Life and Its Treatment." Discussed by Drs. Richards, Fall River, Mass.; Henry L. Coit, Newark; John Lovett Morse, Boston; Frank S. Churchill, Chicago; D. J. M. Miller, Atlantic City; Samuel W. Kelley, Cleveland; Walter D. Ludlum, Brooklyn; S. McC. Hamill, Philadelphia, and Freeman.

Dr. Samuel W. Kelley called attention to the fact that the Council on Education, working on the curriculum for medical schools, had placed pediatrics under the same chair with medicine and neurology. It seemed time for those interested in diseases of children to use what influence they might possess for a proper recognition of the importance of this branch and have set aside a sufficient number of hours for the teaching of pediatrics. After some discussion on the subject, a committee composed of Dr. S. W. Kelley, Dr. A. C. Cotton and Dr. W. W. Butterworth were appointed to consider this matter and report on Wednesday.

WEDNESDAY, JUNE 9—MORNING

The Section was called to order at 9:20 a. m. by the chairman, Dr. Thomas S. Southworth.

The Committee on Teaching of the Diseases of Children recommended that the Section adopt the following resolution:

Resolved, 1. That pediatrics should be represented in the curriculum by a full professorship independent of any other chair. 2. That the study of pediatrics should be compulsory, that is, required for graduation. 3. That the time allowance for the course in pediatrics should not be less than 200 hours. 4. That we further recommend that a committee of this kind should be continued, with power to act at any time during the year, when expedient.

It was moved by Dr. LeGrand Kerr of Brooklyn, seconded and carried, that the report be received and adopted as read.

Dr. Charles Hunter Dunn, Boston, read a paper on "The Treatment with Living Lactic Acid Bacilli of Summer Diarrheas Due to Intestinal Fermentation." Discussed by Drs. J. P. C. Griffith, Philadelphia; Elias Bartley, Brooklyn; T. M. Rotch, Boston; John Lovett Morse, Boston; Frank P. Gengenbach, Denver; Le Grand Kerr, Brooklyn; and Dunn.

Dr. J. P. Crozer Griffith, Philadelphia, read a paper entitled, "Post Hoc Non Ergo Propter Hoc." Discussed by Drs. Theodore J. Elterich, Pittsburg; Theodore Le Boutillier, Philadelphia; Little, Brooklyn, and Griffith.

Dr. Frank Spooner Churchill, Chicago, read a paper on "The Treatment of Epidemic Meningitis with the Flexner Serum." Discussed by Drs. Charles Hunter Dunn, Boston; Alfred Hand, Philadelphia; Frank Allen, Chicago; William M. Welch, Philadelphia; George Scott, New York City, and Churchill.

Dr. John Lovett Morse, Boston, read a paper on "The Treatment of Anemia in Infancy with Citrate of Iron Subcutaneously." No discussion.

Dr. Theodore Le Boutillier, Philadelphia, read a paper on "Sea-Water Treatment, Given by Subcutaneous Injection, with the Results Obtained in Children." Discussed by Drs. George Scott, New York City, and Le Boutillier.

Dr. Alfred F. Hess, New York City, read a paper on "Middle-Milk Mixtures." Discussed by Drs. Frank S. Churchill, Chicago; L. T. Royster, Norfolk; Frank W. Pinneo, Newark; J. J. Thomas, Cleveland, and Hess.

WEDNESDAY, JUNE 9—AFTERNOON

Dr. Henry Dwight Chapin, New York City, read a paper on "The Relation Between the Science and Art of Infant Feeding." Discussed by Drs. J. W. Van Derslice, Oak Park, Ill., and Chapin.

Dr. L. Emmett Holt, New York City, read a paper on "Infant Mortality. The Factors Which Compose it and How These May Be Influenced." Discussed by Drs. Koplik, New York City; Edwin E. Graham, Philadelphia; E. Lackner, Chicago; H. W. Cook, Minneapolis; C. G. Kerley, New York City; Henry L. Coit, Newark; Frank S. Churchill, Chicago; J. W. Van Derslice, Oak Park, Ill.; Alfred Hess, New York City; C. F. Tanney, Toledo, and Holt.

Dr. E. Lackner, Chicago, read a paper entitled "Heubner's System of Infant Feeding Based on Calories and Low Fat."

Dr. Henry L. Bowditch, Boston, read a paper on "A Convenient Method for Determining Caloric Values of Formulas Based on Percentage Feeding of Infants."

These two papers were discussed by Drs. Koplik, New York City; L. T. Royster, Norfolk; C. Griffith, Philadelphia; F. S. Churchill, Chicago; H. D. Chapin, New York City; C. G. Kerley, New York City; C. Douglas, Detroit; W. D. Ludlum, Brooklyn; D. J. M. Miller, Atlantic City; A. C. Cotton, Chicago; John Lovett Morse, Boston; H. T. Price, Pittsburg; J. W. VanDerslice, Chicago; Lackner and Bowditch.

Dr. Henry L. K. Shaw, Albany, read a paper on "The Transmission of Bovine Tuberculosis to Children." Discussed by Drs. William H. Park, New York; Alfred Hess, New York; S. McC. Hamill, Philadelphia, and Shaw.

Dr. J. M. Miller, Atlantic City, read a paper on "History of Two Cases of Congenital Pyloric Spasm, with Remarks on the Treatment and Etiology of the Condition." Discussed by Drs. A. C. Cotton, Chicago; H. M. McClanahan, Omaha; and Miller.

THURSDAY, JUNE 10—MORNING

The Chairman stated that at the meeting in Chicago, in 1908, a committee on nomenclature had been appointed at the close of the session, the names not having been announced. This committee was composed of Dr. Thomas Morgan Rotch, Boston, chairman, and Dr. Charles Hunter Dunn, Boston.

The Nominating Committee reported as follows: Chairman, Dr. William J. Butler, Chicago; secretary, Dr. G. R. Pisek, New York City; delegate, Dr. C. Douglas, Detroit. It was moved, duly seconded, and carried that the nominations be accepted.

The report of the Committee on the Status of Breast Fed Infants was called for, but none of the members of the committee was present.

The report of the committee composed of Dr. Arthur Fairbanks, Boston; Dr. J. W. Van Derslice, Chicago; and Dr. G. H. Cattermole, Boulder, Colo., appointed to inquire into the Status of the School Child, was called for. The Chairman announced that Dr. A. Fairbanks had sent his report.

It was moved by Dr. W. W. Butterworth, seconded by Dr. C. G. Kerley, and carried, that the report of Dr. A. Fairbanks be referred to the Executive Committee. Dr. J. W. Van Derslice's report as a member of the committee was postponed until after the reading of Dr. W. C. Hollopeter's paper.

Dr. W. C. Hollopeter, Philadelphia, read a paper on "The Child's Breakfast."

Dr. J. W. Van Derslice, Chicago, read a paper on "Conditions of the Public School Child."

These two papers were discussed by Drs. L. T. Royster, Norfolk; C. Douglas, Detroit; Little, Brooklyn; C. G. Kerley, New York City; Helen C. Putnam, Providence, R. I.; Henry L. Bowditch, Boston; E. C. Hackett, Chicago; Hollopeter, and Van Derslice.

Dr. Van Derslice stated it was impossible for the Section to devote enough time to cover the entire subject, he therefore moved that there by appointed a Committee on School Hygiene to bring before the Section from time to time certain phases of the school question.

It was moved by Dr. J. W. Van Derslice, and seconded by Dr. W. C. Hollopeter that the report of the Committee on the Status of the School Child be accepted and the committee be discharged. Motion was carried.

The Chairman appointed a committee composed of Dr. J. W. Van Derslice, Chicago; Dr. W. C. Hollopeter, Philadelphia; and Dr. W. W. Butterworth, New Orleans, to consider the matter of school hygiene.

Dr. Maurice Ostheimer, Philadelphia, read a paper on "Help the Mother Nurse Her Child. A Plea to Physicians Not to Begin Artificial Feeding Without First Trying to Help the Mother Maintain Her Milk Supply." Discussed by Drs. H. M. McClanahan, Omaha; J. P. Sedgwick, Minneapolis; L. D. Bulkley, New York City; A. F. Furrer, Cleveland; J. W. Van Derslice, Chicago; Charles Douglas, Detroit; John Lovett Morse, Boston; Frank P. Gengenbach, Denver; Thomas S. Southworth, New York City; J. H. Lopez, Philadelphia, and Ostheimer.

Dr. Colman W. Cutler, New York City, read a paper on "Opacities of the Cornea. Their Frequency in Children from Preventable Causes and Their Effect on Vision." No discussion.

Dr. L. T. Royster, Norfolk, read a paper on "Syphilitic Pseudoparalysis." No discussion.

Dr. Charles Gilmore Kerley read a paper on "Vaccine and Serum Therapy in Diseases of Children."

Dr. William J. Butler, Chicago, read a paper on "The Antibodies in Tuberculosis. Their Relation to Tuberculin Inoculation and Vaccination."

These two papers were discussed by Drs. H. I. Bowditch, Boston; J. B. Sedgwick, Minneapolis, and Butler.

THURSDAY, JUNE 10—AFTERNOON

Dr. M. H. Fussell, Dr. R. S. McCombs and Dr. G. E. de Schweinitz, Philadelphia, gave an "Exhibition of a Patient with Achondroplasia, with Notes on the Disease" (presentation of two living subjects and an achondroplastic skeleton). Discussed by Drs. Pancoast, Philadelphia; R. S. McCombs, Philadelphia; D. J. M. Miller, Atlantic City; Emerson, Baltimore; L. T. Royster, Norfolk; de Schweinitz and Fussell.

Dr. Linnaeus La Fetra, New York City, read a paper on "Suppurative Conditions in Joint Regions in Infants." Discussed by Dr. Charles N. Dowd, New York City.

Dr. Charles N. Dowd, New York City, read a paper on "Persistent Thoracic Sinus Following Empyema." Discussed by Drs. Carl Beck, Chicago; C. G. Kerley, New York City; L. E. La Fetra, New York City, and Dowd.

Dr. Julius Rudisch, New York City, read a paper on "The Treatment of Diabetes Mellitus." Discussed by Drs. A. Jacobi, New York City; C. G. Kerley, New York City, and Rudisch.

A vote of thanks was tendered to the chairman, Dr. Thomas S. Southworth for the success of the meeting.

SECTION ON DERMATOLOGY

TUESDAY, JUNE 8—AFTERNOON

The Section was called to order at 2 p. m., in Olivet Church, by the chairman, Dr. William Allen Pusey, Chicago.

The Chairman said he understood there was a formal motion before the House of Delegates to form a Section on Urology and Syphilis. It seemed to him that a Section on Urology and Syphilis was not a proper subdivision, and he was willing to entertain a motion that would express the sense of the members of this Section on that subject. Dr. J. A. Fordyce, New York, offered the following motion, which was carried and referred to the House of Delegates:

Resolved, That it is the sense of the Section on Cutaneous Medicine and Surgery that in the event a Section on Urology is established, it should not specifically include syphilis. That, while syphilis more nearly belongs to dermatology than to any other specialty, it is a constitutional disease which is an important part of many specialties, and certainly does not belong particularly to urology.

Dr. William Allen Pusey, chairman, delivered an address on "The Teaching of Dermatology; Dermatology and the Pharmacopeia." Discussed by Drs. Louis A. Duhring, Philadelphia, M. B. Hartzell, Philadelphia.

Dr. S. Pollitzer, New York City, read a paper on "Acanthosis Nigricans." Discussed by Drs. W. A. Pusey, Chicago; Alexander S. Wolf, St. Louis; O. H. Foerster, Milwaukee, and Pollitzer.

Dr. M. B. Hartzell, Philadelphia, read a paper on "Morphea-like Epithelioma." Discussed by Drs. J. A. Fordyce, New York City; J. F. Schamberg, Philadelphia; George Pernet, London, England; Louis A. Duhring, Philadelphia; Hazen, Washington; W. A. Pusey, Chicago, and Hartzell.

Dr. O. H. Foerster, Milwaukee, read a paper on "Pemphigus Neonatorum." Discussed by Drs. J. A. Fordyce, New York City; D. W. Montgomery, San Francisco; M. B. Hartzell, Philadelphia; F. C. Knowles, Philadelphia; William A. Pusey, Chicago; George Pernet, London, England, and Foerster.

Dr. W. B. Trimble, New York City, read a paper on "The Chronic Scaly Erythrodermias." Discussed by Dr. W. S. Gottheil, New York City.

Dr. J. A. Fordyce, New York, read a paper on "Report of Some Unusual Forms of Sarcoma of the Skin," with lantern slide illustrations. Discussed by Drs. D. W. Montgomery, San Francisco; J. F. Schamberg, Philadelphia; M. B. Hartzell, Philadelphia; W. S. Gottheil, New York City, and Fordyce.

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Dr. M. L. Heidingsfeld, Cincinnati, read a paper on "Keloid: A Comparative Histologic Study," with lantern slide illustrations. Discussed by Drs. William A. Pusey, Chicago, and Maximilian Herzog, Chicago.

The chairman, Dr. Pusey, showed some lantern slide pictures of colored photographs of skin lesions.

Drs. J. F. Schamberg and R. Hirschler, Philadelphia, presented a paper on "Lichen Sclerosus seu Atrophicus." Discussed by Drs. M. B. Hartzell, Philadelphia, and Schamberg.

Drs. Grover W. Wende and Frederick C. Busch, Buffalo, presented a paper on "An Unusual Case of Hyperidrosis."

The following members were appointed to serve as a Nominating Committe: Drs. M. B. Hartzell, Philadelphia; R. R. Campbell, Chicago, and D. W. Montgomery, San Francisco.

WEDNESDAY, JUNE 9—AFTERNOON

The chairman, Dr. Pusey, announced that this meeting would be devoted to a "Symposium on Syphilis."

Dr. F. G. Harris, Chicago, read a paper on "Parasitology." Discussed by Drs. G. de Santos Saxe, New York City; Howard Fox, New York City; Maximilian Herzog, Chicago; W. S. Gottheil, New York City; D. W. Montgomery, San Francisco; M. L. Heidingsfeld, Cincinnati, and Harris.

Dr. W. J. Butler, Chicago, read a paper on "Complement Deviation and Precipitate Reactions for the Diagnosis of Syphilis and Their Clinical Value." Discussed by Drs. Howard Fox, New York City; Maximilian Herzog, Chicago; H. R. Varney, Detroit; F. G. Harris, Chicago; Alexander S. Wolf, St. Louis; Noguchi, New York City, and Butler.

Dr. George Pernet of London, England, read a paper on "The Intramuscular Treatment of Syphilis with Special Reference to the Insoluble Preparations of Mercury; a Critical Review."

Dr. E. C. Hay, Hot Springs, read a paper on "The Comparative Value of the Internal, Inunction and Injection Method of Administering Mercury in the Treatment of Syphilis." These two papers were discussed by Drs. W. S. Gottheil, New York City; W. B. Trimble, New York City; Alexander S. Wolf, St. Louis; Louis Ernst Schmidt, Chicago; William A. Pusey, Chicago; Pernet and Hay.

Dr. R. R. Campbell, Chicago, the representative of the Section to the House of Delegates, announced that the resolution of the Section respecting the proposed change of name had been acted on favorably by the House of Delegates, and that the future name of the Section would be the Section on Dermatology. Dr. Campbell also announced that the formation of a new section to be known as the Section on Urology and Venereal Diseases had been declined by the House of Delegates, but that the request would be granted on the signed petition of 100 members of the American Medical Association.

THURSDAY, JUNE 10—AFTERNOON

The following officers were elected for the ensuing year: Chairman, Grover W. Wende, Buffalo; vice-chairman, M. L. Heidingsfeld, Cincinnati; secretary, H. R. Varney, Detroit; delegate, William Allen Pusey, Chicago; alternate, D. W. Montgomery, San Francisco.

Dr. Grover W. Wende, Buffalo, said that in accordance with the suggestion contained in the Chairman's address, he moved that a committee of three be appointed by the Chairman, the members of which were to work in cooperation with the Council on Pharmacy and Chemistry of the American Medical Association with the object in view of considering drugs and mixtures in the Pharmacopeia and in the National Formulary that were now official, with the view of eliminating those that were useless and suggesting others that were useful in dermatologic practice. This motion was seconded and carried, and the Chairman said he would announce the names of the committee later.

Dr. A. Ravogli, Cincinnati, read a paper on "The Proliferating Forms of the Cutaneous Syphilides." Discussed by Drs. George Pernet, London, England, and Ravogli.

Drs. D. W. Montgomery and H. Alderson, San Francisco, presented a paper on "A Consideration of the Etiology of Lichen Planus as Illustrated by an Acute Case." Discussed by Drs. D. W. Montgomery, San Francisco; J. A. Fordyce, New York City; Louis A. Duhring, Philadelphia; Ernest Dwight Chipman, San Francisco; George Pernet, London; Philip Kilroy, Springfield, Mass., and Alderson.

Dr. H. R. Varney, Detroit, read a paper on "Furunculosis or Staphylococcus Aureus Infection of the Skin, Treated with Polyvalent Stock Vaccine." Discussed by Drs. M. L. Heidingsfeld, Cincinnati; J. A. Fordyce, New York City; A. Ravogli, Cincinnati; Alfred B. Grosse, San Francisco; Alfred Potter, Brooklyn; Henry H. Hazen, Washington, and Varney.

Dr. L. E. Schmidt, Chicago, read a paper on a Series of Tongue Cases." Discussed by Drs. J. B. Kessler, Iowa City; William A. Pusey, Chicago, and Schmidt.

Dr. W. S. Gottheil, New York City, read a paper on "Iododerma Bullosum Hæmorrhagicum." Discussed by Drs. F. C. Knowles, Philadelphia; George Pernet, London; William A. Pusey, Chicago, and Gottheil.

Dr. Alfred Potter, Brooklyn, read a paper on "Brown-Tail Moth Dermatitis; Report of a Case." Discussed by Drs. Clarence M. Casselberry, Boston; William A. Pusey, Chicago, and Potter.

Dr. F. C. Knowles, Philadelphia, read a paper on "Molluscum Contagiosum; Report of an Institutional Epidemic of Fifty-nine Cases." Discussed by Drs. George Pernet, London; Louis A. Duhring, Philadelphia; Marcus Haase, Memphis; W. A. Pusey, Chicago, and Knowles.

The Chairman, in behalf of the officers, expressed his appreciation of the work done at this meeting of the Section. He viewed with pride and gratitude the program that had just been completed. It had contained no "foolish" papers; on the contrary, all had been useful and instructive, and a good discussion had been elicited. With but a single exception, the authors of every one of the papers announced on the program had been present to respond to their names, and for this the officers felt greatly obliged.

The Chairman announced that Dr. Grover W. Wende, the Chairman-elect, had been called home on account of illness in his family.

On motion of Dr. J. A. Fordyce, New York, a unanimous vote of thanks was tendered to the retiring officers for the work they had done in connection with this meeting of the Section.

SECTION ON PHARMACOLOGY AND THERAPEUTICS

TUESDAY, JUNE 8—AFTERNOON

The chairman, Dr. Reid Hunt, of Washington, D. C., called the meeting to order at 2:30 p. m.

Dr. Hunt delivered his address entitled, "Some Problems of Pharmacopeial Revision."

The secretary, Dr. C. S. N. Hallberg, Chicago, presented the credentials of the delegates of the American Pharmaceutical Association.

Mr. George M. Beringer, of Camden, N. J., chairman of the delegates of the American Pharmaceutical Association, presented an address.

Mr. M. I. Wilbert, Washington, D. C., presented a resolution condemning habit drugs, as follows:

WHEREAS, Opium and its derivatives, cocain and other potent drugs are essentially necessary in the treatment of disease and,

WHEREAS, The abuse of many of these potent drugs and the consequent formation of drug habits is an evil so serious as to demand that means should be adopted to check and prevent them, now; therefore, be it,

Resolved, That the Section on Pharmacology and Therapeutics of the American Medical Association recommend that the House of Delegates urge Congress to enact measures which will restrict the use of potent habit-forming drugs to legitimate medicinal purposes by controlling the same through the tariff of supply.

Secretary Hallberg made a motion that the Chairman appoint a committee of three to consider the resolutions and report on them at the succeeding session. Carried.

Drs. George B. Wallace and A. I. Ringer, New York City, presented a paper on "The Lowering of Blood Pressure by Nitrites." Discussed by Drs. Oliver T. Osborne, New Haven, Conn.; Reid Hunt, Washington, D. C., and Ringer.

Dr. Alexander G. Brown, Jr., Richmond, Va., read a paper on "The Therapeutic Management of Arteriosclerosis Based on the Present View of its Pathology." Discussed by Drs. George F. Butler, Chicago; Upshur, Richmond, Va., and Brown, Jr.

Dr. H. C. Wood, Jr., Philadelphia, read a paper on "The Determination of the Quality of Ergot." Discussed by Mr. Charles E. Vanderkleed, Philadelphia, and Drs. C. S. N. Hallberg, Chicago, and Wood, Jr.

Dr. Thomas F. Reilly, New York City, read a paper entitled "Clinical Results with *Crataegus oxyacanthus*." Discussed by Drs. Reid Hunt, Washington, D. C., and Reilly.

The Chairman, Dr. Hunt, appointed the following on the committee to consider resolutions: Dr. H. C. Wood, Jr., Mr. M. I. Wilbert, Washington, D. C.; Prof. W. A. Puckner, Chicago.

WEDNESDAY, JUNE 9—MORNING

Symposium on Dietetics

Dr. Charles G. Stockton, Buffalo, read a paper entitled, "The Use of Ferments in Medicine." Discussed by Drs. George Dock, New Orleans; Abraham Jacobi, New York City; C. S.

N. Hallberg, Chicago; Reid Hunt, Washington, D. C., and Stockton.

Dr. David L. Edsall, Philadelphia, read a paper on "General Principles of Dietetics with Special Reference to the Use of Proprietary Foods."

Dr. John Howland, New York City, read a paper on "Proprietary and Predigested Foods from the Standpoint of the Pediatrist."

These two papers were discussed by Drs. A. Jacobi, New York City; G. C. Smith, Boston; F. E. Stewart, Philadelphia; C. S. N. Hallberg, Chicago; W. H. Park, New York City; George Dock, New Orleans; B. Fantus, Chicago; S. S. Cohen, Philadelphia; William H. Mercur, Pittsburg, and Edsall.

Dr. George Dock, New Orleans, read a paper on "The Advantages of Adhering to the Use of Potassium Iodid." Discussed by Dr. S. Solis Cohen, Philadelphia.

Dr. John J. Gilbride, Philadelphia, read a paper on "Clinical Use of Phenolphthalein."

Dr. L. G. Rowntree, Baltimore, read a paper on "A Pharmacologic and Clinical Study of Some Phthaleins."

These two papers were discussed by Drs. H. C. Wood, Jr., Philadelphia; Reid Hunt, Washington, D. C.; Rowntree and Gilbride.

Dr. S. Solis Cohen, Philadelphia, read a paper on "The Analgesic Effect of Local Applications of Solutions of Magnesium Sulphate and of Other Salts." Discussed by Drs. Reid Hunt, Washington, D. C.; C. S. N. Hallberg, Chicago; Theodore Potter, Indianapolis, and Cohen.

Dr. S. Solis Cohen, Philadelphia, made the following motion, which was carried:

Whenever an application is received by the officers of the Association for pharmaceutical membership the applicant and proposers shall be notified that no such proposition will be considered by the Section unless the application be endorsed officially by the local county medical society.

A resolution signed by the officers of several sections was read in which the House of Delegates was petitioned to organize a separate section devoted to the special field of physical therapeutics. [The action taken on this is noted in the minutes of Thursday morning.]

Wednesday, June 9—Afternoon

The afternoon session was attended by the Section on Pathology and Physiology.

Symposium on the Present Status of Serum and Vaccine Therapy With Special Reference to the Products on the American Market

Dr. W. H. Park, New York City, read a paper on "Diphtheria Antitoxin."

Dr. J. F. Anderson, Washington, D. C., read a paper on "Tetanus Antitoxin."

These two papers were discussed by Drs. W. H. Hutchings, Detroit; D. E. R. Larned, Detroit; Joseph McFarland, Philadelphia; Park and Anderson.

Dr. M. G. Motter, Washington, D. C., read the paper of Dr. Mark W. Richardson, Boston, on "General Principles of Bacterial Vaccine Therapy." This paper was not discussed.

Dr. G. H. Weaver, Chicago, read a paper prepared by Dr. L. Hektoen and Dr. R. Tunnicliff, Chicago, on "Investigations of Sera and Vaccines for Streptococcus, Staphylococcus and Pneumococcus Infections." Discussed by Drs. D. H. Bergey, W. H. Park, New York City, and Weaver.

Dr. B. A. Thomas, Philadelphia, Pa., read a paper on "(a) Antigonococcus Serum and Gonococcus Vaccine (Bacterin). (b) Uselessness of Therapy by Pyocyaneus Vaccine." Discussed by Drs. S. S. Cohen, Philadelphia; Francis M. Pottenger, Los Angeles; B. Fantus, Chicago; Oscar Birghausen, Cincinnati, and W. H. Hutchings, Detroit.

Dr. Leo Loeb, Philadelphia, read a paper on "The Treatment of Inoperable Sarcoma by Erysipelas and Prodigiosus Toxins." Discussed by Drs. B. A. Thomas, Philadelphia; W. Duffield Robinson, Philadelphia, and O. P. Johnstone, Pittsburg.

Dr. B. A. Thomas, Philadelphia, read a paper on "Results of Three Years' Experience in Bacterial Immunization." Discussed by Dr. S. Solis Cohen, Philadelphia.

Dr. H. Noguchi, New York City, read a paper on "Antivenins." Discussed by Drs. Joseph McFarland, Philadelphia; John A. Van Valzah, Daytona Beach, Fla., and Noguchi.

Dr. E. R. Baldwin, Saranac Lake, N. Y., presented a paper that was read by Dr. Joseph McFarland, Philadelphia, on "General Principles of Tuberculin Diagnosis and Treatment." Discussed by Drs. F. M. Pottenger, Los Angeles; Joseph McFarland, Philadelphia, and Theodore Potter, Indianapolis.

Thursday, June 10—Morning

The following officers were elected: Chairman, David L. Edsall, Philadelphia; vice-chairman, Mr. M. I. Wilbert, Washington; secretary, Dr. Murray Galt Motter, Washington; executive committee, H. C. Wood, Jr., Philadelphia; M. H. Fussell, Philadelphia; Reid Hunt, Washington; delegate, Dr. C. S. N. Hallberg, Chicago; alternate, Prof. W. A. Puckner, Chicago.

In behalf of the Committee on Resolutions, Dr. H. C. Wood, Jr., reported that the committee felt that the subject-matter contained in the resolution in favor of taxing certain habit-forming drugs, was too big a one to be considered at such a short notice, and that the members of the government service and others who are peculiarly interested in this subject should be consulted before the Section on Pharmacology and Therapeutics took action on it, and that therefore the Committee recommended that no action be taken on the matter at the present time, but that the matter be referred to the executive committee to be reported on next year for action.

In regard to the petition for the formation of a new section to cover Physical Therapeutics, the committee does not feel that this calls for actions as a section; it therefore recommends that no formal action be taken as a section.

Dr. Wood said that a peculiar state of affairs obtains in the District of Columbia in that the District of Columbia Medical Society refuses to admit to membership those physicians who are associated with the United States Government Service. Were it not for the fact that the American Medical Association exempts officers from the Army, Navy and the Public Health and Marine-Hospital Service, these would be also debarred. He presented a resolution requesting the House of Delegates to admit all medical employés of the government not engaged in private practice, but in scientific research, on the same terms as are now extended to the Army, Navy and Marine Corps. The report was adopted and was submitted to the house of Delegates, but too late for definite action at this session.

The chairman, Dr. Reid Hunt, Washington, D. C., read the report of the Committee on the United States Pharmacopeia.

The Secretary read a communication from the Medico-Chirurgical Faculty of Maryland, recommending Dr. Charles Caspari, Jr., and several other pharmacists, to membership in the section. On vote, all members of the American Pharmaceutical Association were given the privilege of the floor.

Dr. M. G. Motter, Washington, called the attention of the Section to the fact that the report of the Committee on Pharmacopeia embodied certain resolutions that involved a possible expenditure of funds of the American Medical Association. He therefore moved that these recommendations be forwarded in due course to the Board of Trustees. Carried.

Dr. M. H. Fussell, Philadelphia, read a paper on "Some of the Preparations of the United States Pharmacopeia from the Practitioner's Standpoint."

Dr. C. S. N. Hallberg, Chicago, read a paper on "Additions to and Eliminations from the United States Pharmacopeia from the Viewpoint of Statistics."

Dr. M. Clayton Thrush, Philadelphia, read a paper on "Do We Possess, in the Drugs and Preparations That are Recognized in the United States Pharmacopeia and the National Formulary, a Sufficient Armamentarium for the Medicinal Treatment of Disease?"

These three papers were discussed by Dr. J. P. Remington, Philadelphia; Dr. H. C. Wood, Jr., Philadelphia; Prof. J. W. England, Philadelphia; Mr. W. Boulton Conyngham, Manchester, England; Dr. Henry Beates, Philadelphia; Prof. Charles Caspari, Jr., Baltimore; Dr. John J. Taylor, Philadelphia; Dr. L. F. Kebler, Washington; Mr. M. I. Wilbert, Washington; Prof. H. P. Hynson, Baltimore; Mr. F. M. Apple, Philadelphia; and Drs. C. S. N. Hallberg, Chicago; M. Clayton Thrush, Philadelphia; Reid Hunt, Washington; Bernard Fantus, Chicago, and Charles S. Bacon, Chicago.

Thursday, June 10—Afternoon

Dr. L. F. Kebler, Washington, read a paper on "Nature of Preparations Used in the Treatment of Drug Addictions;" also a paper on "Nomenclature of the U. S. P. and N. F. Mixtures."

Prof. H. P. Hynson, Baltimore, read a paper on "The National Formulary; What It Is and the Purpose It Serves."

These two papers were discussed by Dr. F. E. Stewart, Philadelphia; Dr. A. Jacobi, New York City; Dr. C. S. N. Hallberg, Chicago; Prof. J. P. Remington, Philadelphia; Dr. Henry Beates, Philadelphia; Dr. C. Caspari, Jr., Baltimore; Dr. M. G. Motter, Washington; Dr. Kebler and Professor Hynson.

Prof. H. P. Hynson, Baltimore, Md., made a motion that a committee of five be appointed by the new chairman, members of the Section on Pharmacology and Therapeutics, especially

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physicians, to cooperate with the Committee on National Formulary of the American Pharmaceutical Association. This motion was discussed by Dr. A. B. Hirsh, Philadelphia, Prof. J. P. Remington, Philadelphia; Prof. H. P. Hynson, Baltimore. No action was taken on the motion.

Dr. Henry Leffmann, Philadelphia, presented a paper on "What Can Physicians Do to Improve the Pharmacopeia?" which was read by Dr. A. B. Hirsh, Philadelphia. Discussed by Prof. J. P. Remington, Philadelphia; Drs. Henry Beates, Philadelphia; M. G. Motter, Washington; Reid Hunt, Washington; L. F. Kebler, Washington, and Charles Caspari, Jr., Baltimore.

Dr. Henry Beates, Philadelphia, made a motion that an expression of thanks be tendered by the Section for the admirable and useful program that the Chairman had provided. Carried.

Prof. Joseph Remington, Philadelphia, made a motion that the thanks of the Section be tendered the Chairman for the able and efficient manner in which he performed his duty. Carried.

SECTION ON PATHOLOGY AND PHYSIOLOGY

TUESDAY, JUNE 8—AFTERNOON

Dr. Joseph McFarland and Dr. Paul G. Weston, Philadelphia, presented a paper on "The Hemolytic Action of Crotalus Venom on Human Erythrocytes." Discussed by Drs. D. H. Bergey, Philadelphia; E. C. L. Miller, Detroit, and McFarland.

Dr. Evarts A. Graham, Chicago, read a paper on "The Relation of Ether to Immunity." Discussed by Drs. H. Gideon Wells, Chicago; G. W. Drake, Hollins Institute; Frank Smithies, Ann Arbor, Mich., and Graham.

Dr. Alwin M. Pappenheimer, New York City, read a paper on "The Diagnosis of Thymus Cells, and the Normal and Pathologic Histology of the Thymus." No discussion.

Dr. Frank Smithies, Ann Arbor, Mich., read a paper on "Cardiac Thrombosis; The Clinical and Pathologic Findings in Four Cases." No discussion.

WEDNESDAY, JUNE 9—MORNING

Dr. Yandell Henderson, New Haven, Conn., read a paper on "The Relation of Venous Pressure to the Efficiency of the Heart." Discussed by Drs. A. W. Hewlett, Ann Arbor, Mich.; G. B. Wood, Philadelphia; H. F. Wolf, New York City, and Henderson.

Dr. A. W. Hewlett and Dr. J. G. Van Zwaluwenburg, Ann Arbor, Mich., presented a paper on "The Rate of Blood Flow in the Arm." Discussed by Drs. Yandell Henderson, New Haven; H. F. Wolf, New York City; S. J. Meltzer, New York City, and Hewlett.

Dr. C. C. Fowler and Dr. P. B. Hawk, Urbana, Ill., presented a paper on "The Metabolic Influence of Copious Water Drinking with Meals." Discussed by Drs. G. W. Drake, Hollins Institute; Henry S. Wieder, Philadelphia; Andrew McFarland, Albany; S. J. Meltzer, New York City; M. J. Rosenau, Washington, and Hawk.

Dr. Harlan Shoemaker, Philadelphia, read a paper on "Experimental Analysis of the Altered Function of the Kidney in Diabetes Mellitus." No discussion.

Dr. Walter B. Cannon, Boston, read a paper on "The Relation of Tonus to Peristalsis." Discussed by Drs. Henry S. Wieder, Philadelphia; S. J. Meltzer, New York City; Hugo Freund, Detroit, and Cannon.

WEDNESDAY, JUNE 9—AFTERNOON

The Section attended the session of the Section on Pharmacology and Therapeutics.

THURSDAY, JUNE 10—MORNING

The following officers were elected: President, Dr. H. Gideon Wells, Chicago; secretary, Dr. Yandell Henderson, New Haven; delegate, Dr. W. B. Cannon, Boston.

The Section then adjourned until the afternoon.

THURSDAY, JUNE 10—AFTERNOON

Dr. Leo Loeb, Philadelphia, read a paper on "The Experimental Production of Maternal Placenta." Discussed by Drs. Maximilian Herzog, Chicago; H. G. Wells, Chicago; M. J. Rosenau, Washington, and Loeb.

Dr. Joseph C. Bloodgood, Baltimore, read a paper on "Cysts of the Female Breast, and Their Relation to Carcinoma." Discussed by Drs. William C. MacCarty, Rochester, Minn., and H. S. Wieder, Philadelphia, and Bloodgood.

Dr. William Carpenter MacCarty, Rochester, Minn., read a paper on "Pathology of Gastric Ulcer." Discussed by Drs. J. C. Bloodgood, Baltimore; C. Graham, Rochester, Minn.; Leo Loeb, Philadelphia, and MacCarty.

Dr. Oscar Berghausen, Cincinnati, read a paper on "The Significance of Ehrlich's Aldehyd Reaction in the Urine." No discussion.

Dr. O. P. Johnstone and Dr. C. H. Canning, Pittsburg, presented a paper on "Hemolysis in the Diagnosis of Malignant Neoplasms." Discussed by Drs. W. J. Butler, Chicago; Frank Smithies, Ann Arbor, Mich.; H. Noguchi, New York City, and Johnstone.

Dr. Hideyo Noguchi, New York City, read a paper on "A Rational and Practical Complement Fixation Test and Butyric Acid Test for Syphilis Diagnosis."

Dr. Henry S. Wieder and Dr. Edward M. L'Engle, Philadelphia, presented a paper on "Some Studies of the Precipitin Tests for Syphilis."

Dr. William Litterer, Nashville, Tenn., read a paper on "Serodiagnosis of Syphilis."

These three papers were discussed by Drs. Maximilian Herzog, Chicago; Frank Smithies, Ann Arbor, Mich.; W. J. Butler, Chicago; J. J. Kinyoun, Washington, Noguchi, Wieder and Literer.

THE ATLANTIC CITY REGISTRATION

List of Members Who Registered at the Atlantic City Session, June, 1909

The total registration at the Atlantic City session was over 3,200. At Chicago, in 1908, the registration was over 6,400, the largest in the history of the Association. In 1907, over 3,700 registered at Atlantic City, and in 1906 there were over 4,700 registrations at Boston.

In addition to the names below, of members and guests, a number registered whose names are not given. Some of these have not forwarded credentials for membership and some failed to sign the application blank.

Below are given two summaries, one by sections and one by states.

REGISTRATION BY SECTIONS

Practice of Medicine	850
Obstetrics and Diseases of Women	265
Surgery	859
Preventive Medicine and Public Health	88
Diseases of Children	161
Ophthalmology	317
Stomatology	51
Nervous and Mental Diseases	133
Dermatology	88
Laryngology and Otology	197
Pharmacology and Therapeutics	63
Pathology and Physiology	57
Registered without specifying any one section	87

REGISTRATION BY STATES

Alabama	17	Nebraska	14
Arizona	2	New Hampshire	13
Arkansas	13	New Jersey	243
California	56	New Mexico	2
Colorado	35	New York	475
Connecticut	68	North Carolina	25
Delaware	19	North Dakota	7
Dist. of Columbia	66	Ohio	175
Florida	6	Oklahoma	4
Georgia	11	Oregon	7
Idaho	1	Pennsylvania	893
Illinois	164	Rhode Island	30
Indiana	68	South Carolina	14
Iowa	36	South Dakota	5
Kansas	13	Tennessee	32
Kentucky	29	Texas	12
Louisiana	22	Utah	3
Maine	11	Vermont	16
Maryland	128	Virginia	52
Massachusetts	141	Washington	5
Michigan	87	West Virginia	29
Minnesota	40	Wisconsin	44
Mississippi	4	Wyoming	2
Missouri	66	Foreign	5
Montana	8		

Practice of Medicine

Abrahams, Robert, New York City.
Abbott, Walter H., Hillsboro, New Hampshire.
Adler, Harry, Baltimore, Md.
Alexander, Jos. F., Blocton, Ala.
Alkier, S. J., Brooklyn, N. Y.
Alleman, Frank, Lancaster, Pa.
Allen, L. M., Philadelphia, Pa.
Allyn, Herman B., Philadelphia.
Amerland, J. H., St. Louis, Mo.
Ames, R. P. M., Springfield, Mass.
Anders, J. M., Philadelphia.
Anders, J. Wesley, Philadelphia, Pa.
Anderson, Guy R., Barnesboro, Pa.
Anderson, Wm. E., Farmville, Va.
Andreas, George R., Wilkes-Barre, Pa.
Arbuthnot, Thomas S., Pittsburg, Pa.
Arnell, James R., Denver, Colo.
Arnold, Horace D., Boston, Mass.
Ashcraft, Samuel F., Mullica Hill, N. J.
Atkins, Joseph C., Red Lion, Pa.
Atkinson, A. D, Baltimore, Md.

Babcock, Myron L., Jonesburg, Colo.
Bachman, Charles W., Reading, Pa.
Backenstoe, M. J., Emaus, Pa.
Bacon, John, Philadelphia, Pa.
Bahn, G. W., Spring Forge, Pa.
Baker, F. Kline, Philadelphia.
Baldwin, S. O., So. Framingham, Mass.
Baner, William L., New York City.
Banes, S. Thompson, Philadelphia.
Barker, D. F., Canton, Ohio.
Banks, Wm. H., San Francisco, Cal.
Barbash, Samuel, Atlantic City, N. J.
Barker, E. O., Guthrie, Okla.
Barker, James F., Albany, N. Y.
Barker, Lewellys F., Baltimore, Md.
Barney, Delbert, Wilkes-Barre, Pa.
Barnum, Merritt Wright, Ossining, N. Y.
Bartlett, Clara K., Atlantic City, N. J.
Baruch, Emanuel, New York City.
Basch, Seymour, New York City.
Bassett, Henry L., Bradley, Pa.
Bassett, M. Imogene, Cooperstown, N. Y.
Bassler, Anthony, New York City.
Bastedo, W. A., New York City.
Bates, John F., Setauket, N. Y.
Bauer, L. Denme, Philadelphia, Pa.
Bear, Lowney H., Vevay, Ind.
Beatty, H. M., Trenton, N. J.
Beck, Harvey G., Baltimore, Md.
Beck, J. S., Dayton, Ohio.
Beebe, W. L., St. Cloud, Minn.
Beecher, C. H., Burlington, Vt.
Bell, John M., St. Joseph, Mo.
Bellow, George A., Waterloo, N. Y.
Bennett, John K., Gloucester, N. J.
Bennett, L. F., Beloit, Wis.
Benson, Gideon, Richland Center, Wis.
Berghausen, Oscar, Cincinnati, Ohio.
Berry, R. D., Springfield, Ill.
Bessey, J. M., Tolono, Ill.
Bettmann, H. W., Cincinnati, Ohio.
Berkley, W. B., Auburn, Maine.
Bierring, Walter L., Iowa City, Iowa.
Bierwirth, J. C., Brooklyn, N. Y.
Billings, Frank, Chicago, Ill.
Bishop, Aaron L., Philadelphia.
Black, John J., New Castle, Del.
Black, Stanley P., Pasadena, Cal.
Blackburn, Albert Lee, Philadelphia.
Blake, Gerald, Boston.
Blankenhorn, H., Orrville, Ohio.
Boardman, Albertus K., New Haven, Conn.
Bode, Mildred J., Cincinnati, Ohio.
Bold, Valentine J., Philadelphia.
Bolin, Jesse A., Philadelphia.
Bolling, Louis A., Attica, Ind.
Bolton, L. C., Cedaredge, Colo.
Boon, William Thomas, Manayunk, Pa.
Borzell, F. F., Cressman, Pa.
Bosher, Robert S., Jr., Richmond, Va.
Bosworth, B. D. Knoxville, Tenn.
Bowen, C. R., Almond, N. Y.
Bower, George B. M., Ft. Wayne, Ind.
Bowman, Henry C., Mahanoy City, Pa.
Boyer, J. S., Decatur, Ind.
Boyen, Theodore H., Egg Harbor City, N. J.
Bradeen, Fred B., Essex, Conn.
Bradford, Stella S., Montclair, N. J.
Bradshaw, L. L., New York City.
Bradlin, S. A. E., Greensburgh, Pa.
Branson, Thomas F., Rosemont, Pa.
Brockway, F., Oshkosh, Wis.
Brody, Myer, Cleveland, Ohio.
Brookshire, H. G., Asheville, N. C.
Brosheen, O., Oneida, N. Y.
Broome, Joseph R., New York City.
Brown, C. H., Waterbury, Conn.
Brown, Frank E., Baltimore, Md.
Brown, Frederick, Franklin, Pa.
Brown, H. MacVeagh, Philadelphia.
Brown, Louis Emmitt, Frederick, Md.
Brown, Philip King, San Francisco.
Brunner, H. Philemon, Reading, Pa.
Brush, Frederic, New York City.
Bryant, H. A., Schenectady, N. Y.
Buck, E. M., Montrose, Iowa.
Buck, Jefferies, Baltimore, Md.
Burdick, Frank E., Providence, R. I.
Burnett, Hayes J., Montclair, N. J.
Burroughs, H. S., Pittsburg, Pa.
Burtt, A. S. Monmence, Ill.
Buswell, C. J., Chicago.
Cabot, Richard C., Boston.
Cadwallader, J. C., Norwood, Ohio.
Cairnes, George H., Baltimore, Md.
Caldwell, Charles P., Chicago.
Cameron, George A., Philadelphia.
Campbell, Elizabeth, Cincinnati, Ohio.
Campbell, G. Clayman, Philadelphia.
Campbell, W. L., New Castle, Pa.
Capps, Joseph A., Chicago.
Carpenter, G. S., Waverly, N. Y.
Carpenter, William H., Salem, N. J.
Carrell, John R., Hatboro, Pa.
Carrigan, E. S., Point Pleasant, N. J.
Carter, Joseph J., Weston, Mo.
Caspari, William, Baltimore, Md.
Castleman, Howell L., Sylacauga, Ala.
Cathell, D. W., Baltimore, Md.
Cawley, James L., Springtown, Pa.
Chamberlin, Edwin C., New York City.
Champlin, John, Westerly, R. I.
Chatard, J. A., Baltimore, Md.
Chew, E. C., Atlantic City, N. J.
Chittick, W. R., Detroit, Mich.
Clapp, George H. Philadelphia.
Clark, C. R., Youngstown, Ohio.
Clark, William A., Trenton, N. J.
Clarke, Ida, Youngstown, Ohio.
Clarke, J. Fred, Fairfield, Iowa.
Claytor, Thomas A., Washington, D. C.
Cleaver, Israel, Reading, Pa.
Cleland, James, Jr., Detroit, Mich.
Clemensen, Peter C., Chicago.
Clour, Charles F., Schenectady, N. J.
Cobey, James C., Frostburg, Md.
Codman, Charles A. E., Philadelphia.
Cohen, Myer Solis, Philadelphia.
Cole, Lewis Gregory, New York City.
Coleman, Nathaniel R., Columbus, O.
Coleman, Thomas D., Augusta, Ga.
Coleman, Warren, New York City.
Comstock, Ira M., New York Mills, N. Y.
Conklin, Gustavus, Orwell, Pa.
Connell, A. J., Scranton, Pa.
Conner, Lewis A., New York City.
Cook, G. Wythe, Washington, D. C.
Cook, Henry Wireman, Minneapolis, Minn.
Cooley, Abbott L., Chicopee, Mass.
Coons, J. J., Columbus, Ohio.
Copeland, E. V., Round Hill, Va.
Cordell, Eugene F., Baltimore, Md.
Cornick, Boyd, San Antonio, Texas.
Cotham, E. R., Monticello, Ark.
Coumbe, A. G., Vienna, Va.
Craighill, James M., Baltimore, Md.
Crane, A. W., Kalamazoo, Mich.
Crane, S. Ellis, New York City.
Crawford, James Rea, Philadelphia.
Croft, J. W., Waynesboro, Pa.
Cronin, Michael J., Boston, Mass.
Crump, G. A., New York City.
Culloway, A. W., Asheville, N. C.
Cunningham, J. N., Stanley, Wis.
Cunningham, Thomas E., Cambridge, Mass.
Currie, Thomas R., Philadelphia, Pa.
Curtin, Roland G., Philadelphia.
Cuskaden, A. D., Atlantic City, N. J.
Custer, D. D., Philadelphia.
Daland, Judson, Philadelphia.
Daugherty, M. M., Mechanicsburg, Pa.
Davis, Homer W., Alton, Ill.
Davis, James E., Detroit, Mich.
Davis, Thomas D., Marlburg, Pa.
Day, S. Thomas, Port Norris, N. J.
Da Costa, John C., Jr., Philadelphia.
De Grofft, E. E., Woodstown, N. J.
Delaney, William F., Slate Run, Pa.
Denison, Ellery, New York City.
Devitt, B. F., Philadelphia.
Dickes, John T., Portland, Ind.
Dillard, Henry K., Jr., Philadelphia.
Dock, George, New Orleans, La.
Dockstader, Charles H., New York City.
Dodin, Henry H., New York City.
Dodson, Boyd, Wilkes-Barre, Pa.
Donaldson, John B., Canonsburg, Pa.
Donaldson, John S., Bellevue, Pa.
Doty, E. A., Oxford, Iowa.
Dowden, C. W., West Baden, Ind.
Downey, Charles J., Chesterfield, Mass.
Driesbach, F. R., Dansville, N. Y.
Dripps, John H., Philadelphia.
Driscoll, Daniel, Portland, Maine.
Drummond, Wilson, Philadelphia.
Dubbs, J. H., Philadelphia.
Dunlap, Thomas G., Atlantic City, N. J.
Dunning, Z. F., Philmont, N. Y.
Durand, Jay L., Atlantic City, N. J.
Dwyer, P. J., Waterbury, Conn.
Dyar, B. A., DeSmet, S. Dak.
Earley, Thomas B., Philadelphia.
Eastman, Theodore J., Boston.
Eastman, W. H., Frocerictown, O.
Eccles, R. M., Bloomfield, Mich.
Edgerton, H. K., Lebanon, Tenn.
Egbert, Joseph C., Wayne, Pa.
Egolf, H. M., Liberty, Ind.
Eichorn, Max, New York City.
Ehrenbower, C. W., Jacobus, Pa.
Ellenberger, J. Wesley, Harrisburg, Pa.
Ellinger, T. J., Philadelphia.
Ellis, Charles M., Elkton, Md.
Ellis, J. W., Masonville, Ky.
Elsner, Henry L., Syracuse, N. Y.
Elwell, Alfred M., Camden, N. J.
Ely, William L., Rochester, N. Y.
Emerson, Charles P., Clifton Springs, N. Y.
Erdman, William B., Macungie, Pa.
Evans, D. Webster, Scranton, Pa.
Evans, Joseph S., Jr., Philadelphia, Pa.
Ewing, William B., West Grove, Pa.
Fackler, L. H., York, Pa.
Fair, Fred F., Chicago.
Fair, John F., Cambridge, Mass.
Falkowsky, Charles, Jr., Scranton, Pa.
Faries, Clarence T., Narbeth, Pa.
Farr, Clifford, B., Philadelphia, Pa.
Faught, Charles Ward, St. Joseph, Mo.
Faught, Francis Ashley, Philadelphia.
Felch, Theodore A., Ishpeming, Mich.
Firebaugh, T. C., Harrisonburg, Va.
Fish, Clyde M., Pheasantville, N. J.
Fisher, C. R. P., Bound Brook, N. J.
Fisher, John C., Elmira, N. Y.
Fisler, C. F., Clayton, N. J.
Fithian, G. W., Perth Amboy, N. J.
Fleckenstein, Horace, Newportville, Pa.
Flynn, James H., New Haven, Conn.
Foote, Charles J., New Haven, Conn.
Forchheimer, F., Cincinnati, Ohio.
Foster, William S., Pittsburg, Pa.
Fox, Galen A., Cheyenne, Wyo.
Foxworthy, Frank W., Indianapolis, Ind.
Frank, G. S., Millheim, Pa.
Frankel, J. J., Philadelphia, Pa.
Fraser, Roderick, New York City.
Freeman, E. B., Baltimore, Md.
Fretie, William, Jersey City, N. J.
Fretz, Alfred E., Sellersville, Pa.
Freund, Hugo A., Detroit, Mich.
Freund, H. H., Philadelphia.
Frey, Lewis, Scranton, Pa.
Friedenwald, Julius, Baltimore, Md.
Fronfield, T. H., Media, Pa.
Fuller, F. B., Pawtucket, R. I.
Fulton, Dudley, Los Angeles, Cal.
Funke, John, Philadelphia.
Futcher, Thomas B., Baltimore, Md.
Gardner, Edward R., Montrose, Pa.
Gaston, Ida E., Philadelphia, Pa.
Geisler, Howard D., Philadelphia, Pa.
Gerhard, Samuel P., Philadelphia, Pa.
Gichner, Joseph F., Baltimore, Md.
Gifford, John H., Fall River, Mass.
Gildersleeve, George H., Philadelphia.
Gillette, H. F., Cuba, N. Y.
Githens, Thomas S., Philadelphia.
Gleeson, J. K. P., Washington, D. C.
Godfrey, Andrew, Amsler, Pa.
Godfrey, E. L. B., Camden, N. J.
Goepp, R. Max, Philadelphia.
Gompertz, Louis M., New Haven, Conn.
Good, Albert Parke, Philadelphia.
Good, J. F., New Cumberland, Pa.
Goodman, Edward H., Philadelphia.
Goodwin, Ralph S., Thomaston, Conn.
Gordon, A. L., Burlington, N. J.
Gordon, John K., Chambersburg, Pa.
Graham, Christopher, Rochester, Minn.
Granger, William R. R., Newark, N. J.
Graves, Frederick C., Bridgeport, Conn.
Grant, W. Ed, Louisville, Ky.
Green, G. M., Ottsville, Pa.
Greene, Clarke W., Binghamton, N. Y.
Griffin, C. E., Fair Haven, Vt.
Griffith, J. H., Phillipsburg, N. J.
Griggs, John B., Hartford, Conn.
Grover, John B., Peckville, Pa.
Groves, John E., Uhrichsville, Ohio.
Guthrie, D. Clinton, Philadelphia.
Haase, Charles Elmira, N. Y.
Haas, E. W., Detroit, Mich.
Hall, E. N., Bowling Green, Ky.
Hall, J. N., Denver, Colo.
Halsey, H. F., Roper, N. C.
Halsey, Luther M., Williamstown, N. J.
Halton, Joseph, Sarasota, Fla.
Hamilton, J. H., Union, S. C.
Hamlin, Glenn M., Chicago.
Hampsey, A. R., Pittsburg, Pa.
Hance, Irwin H., Lakewood, N. J.
Hannum, J. W., Ludlow, Mass.
Hannum, Walter, Hatboro, Pa.
Hare, H. A., Philadelphia.
Harman, W. J., Trenton, N. J.
Harris, A. E., Little Rock, Ark.
Harris, E. F., New York City.
Harrower, Henry R., Chicago.
Hartman, Irvin H., Reading, Pa.
Hartman, W. F., Saucque, Va.
Hartman, W. L., Pittston, Pa.
Hartnell, W. H., Allentown, Pa.
Hervey, Edwin H., Atlantic City, N. J.
Hasenkamp, Oscar, Toledo, Ohio.
Hatchett, John A., El Reno, Okla.
Hauswirth, Louis, New York City.
Heard, James D., Pittsburg, Pa.
Hedrick, J. S., Dunkirk, Ohio.
Heider, John C., Philadelphia.
Heller, C. E., Williamsport, Pa.
Heller, Frederick S., Oak Harbor, O.
Heller, Joseph M., Washington, D. C.
Henry, Frank C., Perth Amboy, N. J.
Henry, Frederick P., Philadelphia.
Heritage, Charles S., Glassboro, N. J.
Hershey, George Bair, Gap, Pa.
Hertz, J. L., Lititz, Pa.
Hewes, Henry F., Boston.
Hewlett, A. W., Ann Arbor, Mich.
Heydecker, Henry R., New York City.
Heyn, Louis G., Cincinnati, Ohio.
Hickman, Walter Atlee, Atlantic City, N. J.
Hill, Harold P., San Francisco.
Hill, James Charlesworth, Newton, Iowa.
Hirschfelder, J. O., San Francisco.
Hoagland, Henry, W., Colorado Springs, Colo.
Hocker, Elizabeth M., Cincinnati, O.
Hodges, J. W., Washington, D. C.
Hodgson, H. W., Cumberland, Md.
Hoge, William D., Rayland, Ohio.
Holden, T. N., New York City.
Holder, R. E., Columbus, Ind.
Holland, Arthur B., Wellsville, Ohio.
Hollingshead, E., Pemberton, N. J.
Hollingshead, Frances, Cincinnati, O.
Hollingsworth, W., Philadelphia.
Holtzapple, G. E., York, Pa.
Hood, T. M., Clarksburg, W. Va.
Hoover, Benjamin A., Wrightsville, Pa.
Hoover, C. F., Cleveland, Ohio.
Hoover, P. D., Waynesboro, Pa.
Horn, C. F., Lehighton, Pa.
Hosick, W. G., Newcomerstown, O.
Hostetter, J. E., Gap, Pa.
Hough, Frank P., Binghamton, N. Y.
Huber, G. W., Scranton, Pa.
Hughes, G. W., Armstrong, Ill.
Hughes, W., Philadelphia.
Humphrey, G. E., Cambridge Springs, Pa.
Hunter, James W., Jr., Norfolk, Va.
Hunter, John W., Philadelphia.
Hurd, Edward F., New York City.
Huselton, W. S., Pittsburg, Pa.
Hutchinson, Woods, New York City.
Ikemire, A., Palestine, Ill.
Illman, G. Morton, Philadelphia.
Jacobs, Leopold, New York City.
Jack, William G., Liberty Grove, Md.
James, H. C., Mays Landing, N. J.
James, William H., Hainville, N. J.
Jarrett, Henry S., Towson, Md.
Jackson, H. P., Charleston, S. C.
Jenkins, J. Clement, Lititz, Pa.
Jennings, W. B., Haddonfield, N. J.
Johnston, James I., Pittsburg, Pa.
Jonah, W. E., Atlantic City, N. J.
Jones, Allen A., Buffalo, N. J.
Jones, Clement R., Pittsburg, Pa.
Jones, J. J., Wilmington, Del.
Jones, Frank A., Memphis, Tenn.
Joslin, E. P., Boston.
Joy, J. Addison, Atlantic City, N. J.
Joy, L. Fowler, Fulton, N. Y.
Jump, Henry D., Philadelphia.
Kahlo, George D., French Lick Springs, Ind.
Kain, William W., Camden, N. J.
Kauffman, John W., Reading, Pa.
Kast, L. W., New York City.
Katzenbach, W. H., New York City.
Keafe, Daniel C., Springfield, Mass.
Keegan, Charles, Arlington, Mass.
Kegel, Ernest T., Walcott, Iowa.
Keller, David H., Russell, Pa.
Kelly, J. V., Philadelphia.
Kelsey, Ernest W., Philadelphia.
Kennedy, A. B., Bonham, Texas.
Kerns, Samuel P., Philadelphia.
Kerr, William E., Steubenville, Ohio.
Kilburn, Frank, Presque Isle, Maine.
Kimberlin, A. C., Indianapolis, Ind.
Kimbrough, John S., St. Louis, Mo.
King, Charles Lee, Pasadena, Cal.
King, Emil, Fulda, Minn.
King, James W., Mottville, N. Y.
King, John T., Baltimore, Md.
Kinyoun, J. J., Washington, D. C.
Kip, Henry, Paterson, N. J.
Kirk, Grant S., Camden, N. J.
Klentgen, A. C., Chicago.
Klopp Peter P., Philadelphia.
Knight, Arthur L., Cincinnati, Ohio.
Krum, A. G., Erie, Pa.
Kuder, W. S., U. S. Navy, Philadelphia.
Laker, S. B., Eureka, Utah.
Lambert, A., New York City.
Lawley, George H., Bloomfield, Mich.
Lanson, William J., Summit, N. J.
Lange, Sidney, Cincinnati, Ohio.
Lantz, Percival, Alaska, W. Va.
Lathrop, M. C., Dover, Ill.
Laughlin, Mary A., Hagerstown, Md.
Laughlin, Rebecca P., Waynesboro, Pa.
Lavenson, R. S., Philadelphia.
Lawrence, R. G., Hammondsport, N. Y.
Laws, George C., Paulsboro, N. J.
Leahy, Maurice, Tiffin, Ohio.
Leaman, Walter J., Leaman Place, Pa.

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Le Beuf, Louis G., New Orleans, La.
Le Compte, William C., Bristol, Pa.
Leen, Thomas Francis, Boston.
Leitzell, P. W., Portland Mills, Pa.
Leonard, I. E., Atlantic City, N. J.
Le Roy, Irving D., Pleasant Valley, N. Y.
Levy, I. Harris, Syracuse, N. Y.
Lewis, Charles H., New York City.
Lewis, Dorsey W., Middletown, Del.
Lewis, Thomas Stone, Lexington, Ky.
Libbert, Edward J., Aurora, Ind.
Lichty, John A., Pittsburg, Pa.
Lippincott, Jesse D., Newark, N. J.
Little, F. H., Muscatine, Iowa.
Long, A. A., York, Pa.
Long, Isaac S., Freehold, N. J.
Longcope, Warfield T., Philadelphia.
Loose, D. N., Maquoketa, Iowa.
Love, Frank W., Buffalo, N. Y.
Lowman, J. H., Cleveland, Ohio.
Luce, Charles R., Washington, D. C.
Lund, John L., Perth Amboy, N. J.
Lytle, Frank P., Birdsboro, Pa.
Maben, R. W., Kingston, N. Y.
MacFarland, Andrew, Albany, N. Y.
MacLeod, Norman M., Beverly, Mass.
Macomber, Donald K., Laurium, Mich.
Mandell, A. H., New Bedford, Mass.
Manning, Thomas, New Rochelle, N. Y.
Marchand, J. F., Canton, Ohio.
Marcy, Alex, Riverton, N. J.
Marcy, Fred W., Camden, N. J.
Martelle, Henry A., Hartford, Conn.
Martin, Harry C., Springfield, Mass.
Martin, William, Bristol, Pa.
Marvel, Philip, Atlantic City, N. J.
Marvin, J. B., Louisville, Ky.
Mason, W. M., Sr., Hazel, Ky.
Mathews, George S., Providence, R. I.
Matthews, H. E., Orange, N. J.
Matthews, M. F., Athens, Ga.
Mattill, A. R., Parkesburg, Pa.
May, A., Crothersville, Ind.
May, James C., Manchester, Pa.
Mayberry, F. E., Dorchester, Mass.
Maynard, O. T., Elyria, Ohio.
Maynard, S. S., Frederick, Md.
McAlister, John B., Harrisburg, Pa.
McAninch, D. L., Lamartine, Pa.
McCafferty, J. A., New York City.
McClymonds, Julian T., Lexington, Ky.
McCollam, James A., Uhrichsville, O.
McCollin, S. Mason, Philadelphia.
McComb, C. F., Duluth, Minn.
McConnell, H. E., Chester, S. C.
McCormick, Horace G., Williamsport, Pa.
McCrae, Thomas, Baltimore, Md.
McCreight, W. S., Pittsburg, Pa.
McCullough, A. H., Mansfield, Ohio.
McElroy, James B., Memphis, Tenn.
McGavran, Charles V., Columbus, O.
McGavran, B., Cadiz, Ohio.
McGowan, H., Harrisburg, Pa.
McGuire, James J., Trenton, N. J.
McIlhaney, William H., Easton, Pa.
McKeage, William, Philadelphia.
McKean, George E., Detroit, Mich.
McKenzie, R. Tait, Philadelphia.
McKilvy, James P., Pittsburg, Pa.
McKinney, J. W., Bluffton, Ind.
McLaughlin, T. J., Waterbury, Conn.
McLaughlin, J. J., Philadelphia.
McLean, Frank, Chewango Forks, N. Y.
McLean, John D., Philadelphia.
McPharthon, Peter, Schenectady, N.Y.
Meigh, Josiah, Bernardsville, N. J.
Mentzer, S. E., Monroeville, Ind.
Mercer, William H., Pittsburg.
Merrill, B. E., Dent's Run, Pa.
Mervine, Graydon, Bitumin, Pa.
Mervine, R. R., Hillsgrove, Pa.
Mesrobach, Joseph, Brooklyn, N. Y.
Michener, Evan W., Philadelphia.
Middleton, William J. Steelton, Pa.
Miller, A. I., Brattleboro, Vt.
Miller, DeWitt Clinton R., Mason & Dixon, Pa.
Miller, John Harvey, Harrisburg, Pa.
Miller, Joseph S., Chicago.
Miller, N. C., Stroudsburg, Pa.
Millikin, T. N., Waynesburg, Pa.
Minor, Charles B., Wilkes Barre, Pa.
Minish, L. T., Frankfort, Ky.
Minnick, A. G., Lock Springs, Mo.
Moak, Charles H., New York City.
Moncure, Ben C., Roanoke, Va.
Moore, Edwin W., Franklin, Pa.
Moran, George W., Detroit, Mich.
Morgan, Arthur C., Philadelphia.
Morgan, James Dudley, Washington, D. C.
Morgan, J. Howard, Westerly, R. I.
Morrow, E. O., Canton, Ohio.
Morrow, H. Wilson, Swissvale, Pa.
Morton, Roalie Slaughter, New York City.
Mosby, C. V., St. Louis, Mo.
Mowery, J. L., Lancaster, Pa.
Mowry, Jesse E., Providence, R. I.
Mudgett, John H., Philadelphia.
Mulligan, Wesley T., Rochester, N.Y.
Munson, S. E., Springfield, Ill.
Murphy, Anna F., Worcester, Mass.
Murphy, Franklin E., Kansas City, Mo.
Murphy, Timothy J., Boston.
Murray, John H., Reynoldsville, Pa.
Murray, Peter, New York City.
Musser, John H., Philadelphia.
Myers, Isaac N., Maples, Ind.
Nagle, Thomas S., Allentown, Pa.
Neary, Philip M., Cortland, N. Y.
Neel, H. A. P., Philadelphia.
Neff, John, Baltimore, Md.
Nettleton, Irving L., Bridgeport, Conn.
Neufeld, Maurice A., Chester, Pa.
Neuman, Leo H., Albany, N. Y.
Newell, H. A., Louisburg, N. C.
Newlin, Le Roy, Robbinsville, N. J.
Nickerson, L. H. A., Quincy, Ill.
Nisbet, James Douglas, New York City.
Nisbet, Walter O., Charlotte, N. C.
Norris, George W., Philadelphia.
Norris, M. D., Eldersburg, Md.
North, James, Atlantic City, N. J.
North, Lucian G., Tecumseh, Mich.
Northrup, A. H., Marlin, Ind.
Noyes, Robert F., Providence, R. I.
O'Brien, D. D., Oswego, N. Y.
O'Connell, John A., Philadelphia.
O'Connor, John H., Hyde Park, Mass.
Oettiker, James, Platterville, Wis.
O'Meara, John G., Providence, R. I.
Oppenheimer, B. S., New York City.
Osborn, Samuel, Lansing, Mich.
Osmond, Anna R., Philadelphia.
Oswald, B. Frank, Cleveland, Ohio.
Otis, Elmer F., Lake George, N. Y.
Ovler, W. H., New York City.
Page, A. C., Des Moines, Iowa.
Page, Henry F., Philadelphia.
Palfrey, Francis W., Boston.
Palmer, Albert H., Marlborough, N. Y.
Park, William E., New Milford, Pa.
Parke, R. R., Wellsville, Ohio.
Parker, Deha L., Detroit, Mich.
Parry, Eleanor, New York City.
Patek, Arthur J., Milwaukee, Wis.
Paul, Thomas M., St. Joseph, Mo.
Pearson, Donnell M., Louisiana, Mo.
Pease, Herbert, Slater, Iowa.
Peck, C. W., Brandon, Iowa.
Pepper, Wilbur L., Philadelphia.
Perkins, Jay, Providence, R. I.
Peterman, A. L., Parker, S. D.
Peterman, J. H., Cherry Tree, Pa.
Pettit, J. W., Ottawa, Ill.
Pfaff, Otto, Oneida, N. Y.
Pfahler, G. E., Philadelphia.
Pfaltzgraff, S. S., York, Pa.
Pfromm, George A., Philadelphia.
Phelps, A. W., East Aurora, N. Y.
Phelps, John S., Boston.
Pierce, William R., Amsterdam, N.Y.
Pigman, Samuel D., Cloverdia, Kan.
Podolski, L. A., Philadelphia.
Pollock, W. F., Pittsburg.
Porath, W. C., Varina, Iowa.
Porch, G. R., Johnstown, Pa.
Porter, David R., Kansas City, Mo.
Porter, W. A., Chicago.
Pottenger, F. M., Monrovia, Cal.
Potter, Nathaniel Bowditch, New York City.
Potter, Will H., Niagara Falls, N.Y.
Potter, Theodore, Indianapolis, Ind.
Pratt, John H., Manchester, N. Y.
Pratt, Joseph H., Boston.
Price, C. E., Robinson, Ill.
Prickitt, Elmer D., Mount Holly, N. J.
Purcell, Howard, Bristol, Pa.
Quick, T. C., Falls Church, Va.
Rahter, C. A., Harrisburg, Pa.
Ramsdell, John L., Albion, Mich.
Raymond, F. S., Memphis, Tenn.
Reading, George Evans, Woodbury, N. J.
Redus, W. D., Port Gibson, Miss.
Reed, Boardman, Alhambra, Cal.
Reichard, N. W., Bangor, Pa.
Reid, David W., Jacksonville, Ill.
Reid, H. L., Charleston, Mo.
Reiley, Edward A., Atlantic City, N. J.
Reinle, George G., Oakland, Cal.
Remesmund, C. A., Junction City, Kan.
Rentschler, Harry F., Reading, Pa.
Reynolds, James C., Lake Geneva, Wis.
Reynolds, Walter, Atlantic City, N. J.
Richard, Florence Harvey, Philadelphia.
Richards, Raymond G., St. David, Ill.
Richards, S. S., Frankfort, N. Y.
Richter, Arthur J., Chicago.
Riddle, Julia, Oshkosh, Wis.
Ridgway, William F., Atlantic City, N. J.
Riegel, H. H., Catasauqua, Pa.
Riese, B. L., Chicago.
Riesman, David, Philadelphia.
Rigg, J. E., Wilkinsburg, Pa.
Ringland, Joseph B., Oswego, N. Y.
Robbins, G. E., Chillicothe, Ohio.
Roberts, Dudley D., Brooklyn, N. Y.
Robertson, William Egbert, Philadelphia.
Robin, Albert, Wilmington, Del.
Robson, John A., Hall's Corners, N. Y.
Rochester, De Lancey, Buffalo, N. Y.
Rodack, J. Paul, Lititz, Pa.
Rothwell, W. P., Pawtucket, R. I.
Roussel, Albert E., Philadelphia, Pa.
Rowley, Robert L., Hartford, Conn.
Roy, Philip S., Washington, D. C.
Ruch, Charles F., Summit Hill, Pa.
Ruff, William F., Philadelphia, Pa.
Rulison, L. B., Watervliet, N. Y.
Russell, S. J., Springfield, Mass.
Rutherford, J. E., Ridgway, Pa.
Sailer, Joseph, Philadelphia.
Salor, William S., Trenton, N. J.
Salinger, Julius L., Philadelphia.
Samson, H. M., Lancaster, Ohio.
Sanborn, George P., Boston.
Sawyer, John P., Cleveland, Ohio.
Sauer, J. George, New York City.
Saul, Charles H., Steelton, Pa.
Schauffler, William Gray, Lakewood, N. J.
Scheehle, J. Evans, Philadelphia.
Schleiter, H. G., Pittsburg, Pa.
Schock, Harvey E., Philadelphia.
Schoonmaker, Irving R., Philadelphia.
Schulz, F. M., Wauwatosa, Wis.
Schweer, T. J., Beardstown, Ill.
de Schweinitz, George Lord, Philadelphia, Pa.
Scott, George, Atlantic City, N. J.
Scott, John McP., Hagerstown, Md.
Scott, S. H., Coatesville, Pa.
Scribner, Charles H., Paterson, N. J.
Seabrook, Alice M., Philadelphia.
Seibert, W. H., Steelton, Pa.
Settle, George M., Baltimore, Md.
Sharpe, E. S., Atlantic City, N. J.
Sharpe, Frank M., Brooklyn, N. Y.
Sharpless, William T., West Chester, Pa.
Shattuck, F. C., Boston.
Shattuck, George Cheever, Boston.
Shaul, Frank C., Addison, N. Y.
Shaw, L. M., Osceola, Neb.
Shearer, James Y., Sinking Spring, Pa.
Sheldon, Charles S., Madison, Wis.
Shellenberger, J. R., Philadelphia.
Shelley, A. A., Galena, Kan.
Shepherd, I. M., Trenton, N. J.
Shipps, William H., Bordentown, N. J.
Shoemaker, Albert M., White Haven, Pa.
Shulz, P. David, New York City.
Shuman, Ambrose, Catawissa, Pa.
Simmons, Horace B., Baltimore, Md.
Simon, Sidney K., New Orleans, La.
Simonton, Thomas Grier, Pittsburg, Pa.
Sisco, P. S. Bourdeau-, Washington, D. C.
Smiley, T. B., Mt. Vernon, S. D.
Smith, A. B., Wyoming, Pa.
Smith, C. Urban, Baltimore, Md.
Smith, George Carroll, Boston.
Smith, Charles Washington, N.J.
Smith, Charles B., Newtown, Pa.
Smith, E. Franklin, New York City.
Smith, Edmund L., Schellburg, Pa.
Smith, Frederick B., Watertown, N. Y.
Smith, G. H., Knightstown, Md.
Smith, Myrtle, Worcester, Mass.
Smith, Webster S., Dayton, Ohio.
Snider, S. S., Courtland, Kan.
Snyder, Francis J., York, Pa.
Sonder, L. R., Ventnor, N. J.
Spach, A. B., Chicago, Ill.
Springer, Willard, Wilmington, Del.
Squier, A. O., Springfield, Mass.
Staebler, David M., Brooklyn, N. Y.
Starbuck, J. Clinton, Media, Pa.
Starke, G., New York City.
Starkweather, C. L., Occoquath, Va.
Steen, W. D., New York City.
Stella, Antonio, New York City.
Stengel, Alfred, Philadelphia.
Stern, Heinrich, New York City.
Stevens, Andrew J., Malden, Mass.
Stevens, J. W., Brooklyn, N. Y.
Stevenson, Alexander F., Chicago.
Stewart, Charles E., Battle Creek, Mich.
Stewart, W. Blair, Atlantic City, N. J.
Stickney, Y. H., Dickinson, N. D.
Stockdale, T. H., Rural Valley, Pa.
Stockton, Charles G., Buffalo, N. Y.
Stoddard, C. H., Milwaukee, Wis.
Stone, Arthur K., Boston.
Stout, Henry R., Wenonah, N. J.
Strickler, A. W., Scottdale, Pa.
Strother, F. P., Madisonville, Ky.
Stronse, Solomon, Baltimore, Md.
Sullivan, John F., New Haven, Conn.
Summerill, J. M., Penn Grove, N. J.
Swan, John M., Philadelphia.
Swan, W. S., Harrisburg, Ill.
Swayne, Eugene, Philadelphia.
Talley, James L., Philadelphia, Pa.
Taylor, Frederic W., Cambridge, Mass.
Taylor, J. Gurney, Philadelphia.
Taylor, L. C., Springfield, Ill.
Thomas, Arthur R., West Eaton, N. Y.
Thompson, G. W., Winamac, Ind.
Thornton, William H., Buffalo, N.Y.
Tice, Frederick, Chicago.
Tileston, Wilder, Boston.
Thomas, Anne H., Philadelphia.
Thomas, Frank W., Philadelphia.
Tolman, Julia, Arlington, Mass.
Tomlinson, O. R., Tate Springs, Tenn.
Tomlinson, Peter W., Wilmington, Del.
Tompkins, McCaw, Richmond, Va.
Traver, S. N., Steelton, Pa.
Trexler, J. A., Brodheadsville, Pa.
Troutman, John, Kansas City, Kan.
Tukey, Frank M., Bridgeport, Conn.
Tuttle, Charles A., New Haven, Conn.
Tuttle, Lucius, Philadelphia.
Tyson, James, Philadelphia.
Underwood, S. L., Pittston, Pa.
Upham, J. H. T., Cincinnati, Ohio.
Vander Hoof, Douglas, Richmond, Va.
Van Dervoort, C. A., Philadelphia.
Van Etten, Nathan B., New York City.
Van Gaskin, Frances C., Philadelphia.
Variell, Arthur D., Waterbury, Conn.
Waddington, R. A., Salem, N. J.
Wade, John W., Millville, N. J.
Wagner, Otto, Elizabeth, N. J.
Waite, J. E., Lodi, Ohio.
Walker, James B., Philadelphia.
Wallace, William C., Pittsburg, Pa.
Wallace, N. C., Dover, Pa.
Wallin, Mark K., New York City.
Wallis, J. Edw., Philadelphia.
Walsh, Thomas J., Buffalo, N. Y.
Walsh, Thomas N., Hawkeye, Iowa.
Ward, E. Tillson, Philadelphia.
Ward, John P., Vevay, Ind.
Ware, F. V., Millville, N. J.
Warner, Robert A., Baltimore, Md.
Way, Eugene, Dennisville, N. J.
Weaver, Joseph K., Williamstown, Pa.
Weeks, Dana O., Marion, Ohio.
Welch, William C., New Haven, Conn.
Welker, Franklin, New York City.
Wells, Edward F., Chicago.
Wenner, E. Bruce, Philadelphia.
Wentz, B. F., Philadelphia.
West, Edward G., Boston.
West, S. Stella, Philadelphia.
Wertman, A. A., Tannersville, Pa.
Wheeler, Frank D., Detroit, Mich.
Whitcomb, Harry H., Norristown, Pa.
White, Edward T., Navy.
White, Franklin W., Boston.
Wiegand, William E., Baltimore, Md.
Wilkinson, H. R., Montgomery, Ala.
Willetts, Ernest W., Pittsburg, Pa.
Williams, J. R., Rochester, N. Y.
Williams, Pearl, Providence, R. I.
Williams, W. T., Mt. Carmel, Pa.
Wilson, A. S., Bristol, Pa.
Wilson, Joseph, Swedesburg, Md.
Wilson, L. D., Wheeling, W. Va.
Wilson, Robert, Jr., Charleston, S. C.
Wilson, Ward O., Clearfield, Pa.
Witherspoon, J. C., Nashville, Tenn.
Witter, Orin R., Hartford, Conn.
Woehnert, Albert E., Buffalo, N. Y.
Wolfe, Samuel, Philadelphia.
Wolford, Martin L., Harrisburg, Pa.
Wood, L. C., Poughkeepsie, N. Y.
Woodhead, H. Irvin, Forksville, Pa.
Woodruff, J. B., Johnstown, Pa.
Woods, J. H., Brookline, Mass.
Woods, William W., Rilford, Pa.
Woodward, H. L., Cincinnati, Ohio.
Woodward, Louis K., Westminster, Md.
Woodyard, S. W., Greeneville, Tenn.
Woodter, A. J., Weston, W. Va.
Wynn, Frank B., Indianapolis, Ind.
Yaeger, Christian G., Philadelphia.
Yates, Frederick, Washington, D. C.
Yates, H. Wellington, Detroit, Mich.
Yeager, George C., Philadelphia.
Zimlick, Arthur J., Philadelphia.
Ziminger, George F., Canton, Ohio.

Obstetrics and Diseases of Women

Abbott, B. T., Ocean City, N. J.
Abbe, Truman, Washington, D. C.
Abrams, Edward T., Dellar Bay, Mich.
Adams, Charles T., Philadelphia.
Alexander, A. F., Paterson, N. J.
Allen, M. May, Rochester, N. Y.
Anderson, H. G., Waterbury, Conn.
Anspach, Brooke M., Philadelphia.
Arnold, J. O., Philadelphia.
Astley, G. Mason, Philadelphia.
Ayer, Silas Hibbard, Boston, Mass.
Bacon, Charles S., Chicago.
Baer, J. S., Camden, N. J.
Bainbridge, William Seaman, New York City.
Barnes, Charles S., Philadelphia.
Barnes, Samuel S. P., Massillon, O.
Barrett, Channing, W., Chicago.
Bastistella, Leo Joanna, New York City.
Beck, C. E., Portland, Pa.
Becker, John N., Reading, Pa.
Benjamin, Arthur E., Minneapolis, Minn.
Blanchard, Francis R., Lakeview, Mich.
Bland, Curtis, Greensburg, Ind.
Bland, P. B., Philadelphia.
Boldt, H. J., New York City.
Bovée, J. W., Washington, D. C.
Bowers, L. G., Dayton, Ohio.
Boyd, G. M., Philadelphia.
Bradley, A. M., Bismarck, N. D.
Briggs, A. B., Ashaway, R. I.
Briggs, Henry W., Wilmington, Del.
Broadrup, G. L., Cumberland, Md.
Bronk, Edmund F., Amsterdam, N.Y.
Bryan, W., New York City.
Buell, Mary Catherine, Cumberland, Md.
Bell, Maud L., Marion, Ohio.
Bullard, Rose T., Los Angeles, Cal.
Bunn, Ralph A., Dayton, Ohio.
Bunting, P. Du Bois, Elizabeth, N. J.
Burch, J. E., Nashville, Tenn.
Burt, F. C., Hammonton, N. J.
Carstens, J. H., Detroit, Mich.
Carter, Helen L., Newark, N. J.
Chandler, Smithin, Philadelphia, Pa.
Chard, Marie L., New York City.
Chase, Walter B., Brooklyn, N. Y.
Clark, John E., Philadelphia, Pa.
Clark, S. M. D., New Orleans, La.
Cleland, F. A., New York City.
Cohen, Bernard, Buffalo, N. Y.
Coles, Stricker, Philadelphia.
Conaway, Walt P., Atlantic City, N. J.
Cotter, E. J., Boston.
Cowle, Fannie W., Hot Springs, Ark.
Craighead, Claude C., Athens, La.
Cregar, Peter B., Rainfield, N. J.
Crosby, William Smith, Philadelphia.
Crossen, H. S., St. Louis, Mo.
Da Costa, John C., Philadelphia.
Darnall, William Edgar, Atlantic City, N. J.
Davis, Daniel W., Wellston, Ohio.
Davis, Ella M., Holyoke, Mass.
Davis, E. W., Seymour, Conn.
Davis, Fannie, Oil City, Pa.
Davis, James C., Rochester, N. Y.
Day, Mary Gage, Kingston-on-Hudson, N. Y.
Deal, John Colton, Philadelphia.
Dedley, Gilman C., Philadelphia.
Donoghue, Frances V., Boston.
Dorland, W. A. Newman, Philadelphia.
Dorsett, Walter B., St. Louis, Mo.
Drukin, Samuel J., New York City.
Dubell, J. Eldridge, Columbus, N. J.
Duncan, H. A., Philadelphia.
Fisher, John M., Philadelphia.
Fithian, Joel W., Camden, N. J.
Fluemer, Oswald C., Mt. Clemens, Mich.
Fort, R. E., Nashville, Tenn.
Foster, Frank P., New York City.
Foye, A. Frances, Washington, D. C.
Frederick, Carlton C., Buffalo, N. Y.
Fry, Henry D., Washington, D. C.
Furniss, H. D., New York City.
Gallagher, Harry Glenolden Dells, Pa.
Gallant, A. Ernest, New York City.
Gardner, William S., Baltimore, Md.
Gardebrant, C., Atlantic City, N. J.
Girvin, John H., Philadelphia.
Golden, William W., Elkins, W. Va.
Goodrich, William A., Waterbury, Conn.
Grad, H., New York City.
Greene, Mary T., Castile, N. Y.
Greene, Thomas F., Boston.
Hackett, Emma C., Chicago.
Hall, Rufus B., Cincinnati, Ohio.
Hamilton, S. S., Punxsutawney, Pa.
Hammond, Frank C., Philadelphia.
Harris, Philander A., Paterson, N. J.
Harvey, E. Marshall, Media, Pa.
Haskins, Mary G., Detroit, Mich.
Hazlett, Edgar M., Washington, Pa.
Heinceberg, Alfred, Philadelphia.
Heinecke, George B., Washington, D. C.
Higgins, Charles W., Providence, R. I.
Hill, I. L., New York City.
Hill, W. B., Milwaukee, Wis.
Hodgins, Arthur G., Honolulu, Hawaii.
Howell, W. H., Altoona, Pa.
Hunner, Guy L., Baltimore, Md.
Ill, Edward J., Newark, N. J.
Jack, Harvey P., Canisteo, N. Y.
Jacob, Louis H., Philadelphia.
Jewett, Charles, Brooklyn, N. Y.
Johnson, Burt C., Buffalo, N. Y.
Johnson, H. L. E., Washington, D.C.
Jones, Thomas, Philadelphia.
Keim, William Franklin, Newark, N. J.
Keller, Franklin J., Paterson, N. J.
Kelly, Howard A., Baltimore, Md.
Keyes, J. J., Brooklyn, N. Y.
Kight, Rufus S., Norfolk, Va.
Koons, Philip Rankins, Mechanicsburg, Pa.
Kosmak, George W., New York City.
Krusen, Wilmer, Philadelphia.
Leavitt, John F., Camden, N. J.
Leof, M. V., Philadelphia.
Lesnig, J. A., Schuylkill Haven, Pa.
Lieli, Edward N., Jacksonville, Fla.
Lockrey, Sarah H., Philadelphia.
Longenecker, C. B., Philadelphia.
Lothrop, Karl P., Buffalo, N. Y.
Luburg, L. F., Philadelphia.
Macfarlane, Catharine, Philadelphia.
Maertz, Charles, Cincinnati, Ohio.
Mallett, G. H., New York City.
Manton, Walter P., Detroit, Mich.
Marche, E. J., Canton, Ohio.
Marcy, Henry O., Boston.
Marshall, R. J., East Liverpool, O.
Martindale, J. W., Camden, N. J.
Martin, Elizabeth L., Pittsburg, Pa.
Martine, Angeline, Utica, N. Y.
Massey, G. Betton, Philadelphia.
Mathews, William J., Hoboken, N. J.
McCune, Virginia, Martinsburg, W. Va.
McDonald, Ellice, New York City.
McDougald, John Q., Philadelphia.
McGlinn, John A., Philadelphia.
McKenney, D. C., Buffalo, N. Y.
McMenamin, F. J., Highland Falls, N. Y.
McNutt, Sarah J., New York City.
McParlan, John P., New York City.
McPherson Ross, New York City.
McVeigh, James A., Detroit, Mich.
Miles, Clarence C., Greenport, N. Y.
Miller, C. Jeff, New Orleans, La.
Miller, G. Brown, Washington, D. C.
Miller, Harold A., Pittsburg, Pa.
Miller, S. M., Knoxville, Tenn.
Mills, Henry M., Brooklyn, N. Y.
Mitchell, Robert L., Baltimore, Md.
Monagan, Charles, A., Waterbury, Conn.
Mondhank, R. W. Lancaster, Ohio.
Montgomery, E. E., Philadelphia.
Morris, C. A., San Francisco, Cal.
Morrison, Robert, Pittsburg, Pa.
Mosher, Eliza M., Brooklyn, N. Y.
Mosher, George Clark, Kansas City, Mo.
Nelson, Ida M., Shively-Oklahoma City, Okla.
Norris, Richard C., Philadelphia.
Novak, Emil, Baltimore, Md.
Offutt, Lemuel, Greensburg, Pa.
Osborne, Henry Manning, Youngstown, Ohio.
pantzer, H. O., Indianapolis, Ind.
Parke, William E., Philadelphia, Pa.
Peterson, Reuben, Ann Arbor, Mich.
Pitts, Herman C., Providence, R. I.
Polak, John Osborne, Brooklyn, N.Y.
Potter, Irving W., Buffalo, N. Y.
Potter, Marion Craig, Rochester, N.Y.
Potter, William Warren, Buffalo, N. Y.
Powell, Cuthbert, Denver, Colo.
Purnell, Caroline M., Philadelphia.
Putt, Maurice O., Oberlin, Pa.
Quayle, John H., Cleveland, Ohio.
Reed, Charles A. L., Cincinnati, O.
Ressler, G. W., Ashland, Pa.
Reynolds, Charles B., Philadelphia.
Richards, J. S., Fallsington, Pa.
Richardson, Emma M., Camden, N.J.
Risk, Winthrop A., Providence, R. I.
Rosenthal, Max, New York City.
Ross, D. C., Fort Worth, Texas.
Russell, William Wood, Baltimore, Md.
Sanes, Kay L., Pittsburg, Pa.
Sawyer, Charles J., Windsor, N. C.
Scarnecchia, Joseph, Youngstown, O.
Schenck, Benjamin R., Detroit, Mich.
Schmeling, A. F., Columbus, Wis.
Schweikart, Frederick J., Elmhurst, N. Y.
Schroeter, Ludwig, Buffalo, N. Y.
Schumann, Edward A., Philadelphia, Pa.
Schwarz, Henry, St. Louis, Mo.
Scull, William B., Philadelphia.
Seegar, J. K. B. E., Baltimore, Md.
Seiss, F. H., Taneytown, Md.
Shimer, Sterling D., Easton, Pa.
Shoemaker, George Erety, Philadelphia.
Shoop, Frederic J., Brooklyn, N. Y.
Simpson, F. F., Pittsburg, Pa.
Sledge, W. H., Mobile, Ala.
Small, W. B., Philadelphia.
Smith, Clarence D., Philadelphia.
Smith, Cassas, Olean, N. Y.
Smith, Richard R., Grand Rapids, Mich.
Spiller, William H., New York City.
Spurney, A. F., Cleveland, Ohio.
Stahl, Alfred, Newark, N. J.
Steedly, B. B., Spartanburg, S. C.
Stein, Arthur, New York City.
Stein, Newton H., Middleport, Pa.
Stein, George W., Norristown, Pa.
Stewart, Otto K., Canisteo, N. Y.
Stewart, Zeller White, Grand Forks, N. D.
Stillwagen, Charles A., Pittsburg, Pa.
Stone, Isaac Scott, Washington, D. C.
Strasser, August Adrian, Arlington, N. J.
Strobell, C. W., Rutland, Vt.
Strong, C. M., Charlotte, N. C.
Strouse, U. S., Beaver, Pa.
Stuckle, W. P., Clyde, Mo.
Swahlen, Percy H., St. Louis, Mo.
Taggart, David, Frackville, Pa.
Taneyhill, G. Lane, Baltimore, Md.
Thompson, Charles O., Boston, Massachusetts.
Timmerman, Charles F., Amsterdam, N. Y.
Todd, Frank L., Pittsburg, Pa.
Townsend, Mary E., Atlantic City, N. J.
Tracy, S. E., Philadelphia.
Trevaskis, A. L., Turtle Creek, Pa.
Trumbower, M. R., Monett, Mo.
Ulrich, Katharine, Chester, Pa.
Underwood, E. S., Akron, Ohio.
Vanderveort, Louie E., Battle Creek, Mich.
Vernier, Jean A., Detroit, Mich.
Von Tobel, Frederic, Lebanon, N. H.
Waldo, Ralph, New York City.
Walker, Edwin, Evansville, Ind.
Walton, L. S., Jenkintown, Pa.
Ward, George Gray, Jr., New York City.
Weber, George T., Olney, Ill.
Weiss, Edward A., Pittsburg, Pa.
Welch, H. E., Youngstown, Ohio.
Welch, John B., New York City.
Wetherill, Horace G., Denver, Colo.
White, Benjamin W., Bridgeport, Conn.
White, George R., Savannah, Ga.
Whitebaker, Hall, Mound City, Ill.
Wilson, Jefferson H., Beaver, Pa.
Wilson, W. Reynolds, Philadelphia.
Winebrake, Albert J., Scranton, Pa.
Winterstein, J. Boone, Moorestown, N. J.
Wobus, R. E., St. Louis, Mo.
Woodruff, W. Stuart, Mt. Vernon, N. Y.

Surgery

Adams, C. M., Williamsport Pa.
Adler, Lewis N., Jr., Philadelphia, Pa.
Albee, Fred H., New York City.
Alderson, S. P., Russellville, Ky.
Allaben, J. E., Rockford, Ill.
Allen, Carroll W., New Orleans, La.
Allen, H. R., Indianapolis, Ind.
Allen, John Thomas, Brownsville, Tenn.
Allenburger, C. A., Columbus, Neb.
Anderson, J. Howard, Marytown, W. Va.
Armstrong, Alex, White Haven, Pa.
Ashley, Dexter D., New York City.
Atlee, John L., Lancaster, Pa.
Ayres, Douglas, Fort Plain, N. Y.
Babcock, W. Wayne, Philadelphia.
Bacon, H. Augustus, Philadelphia.
Bacon, Wm. C., Philadelphia.
Bagley, Charles, Jr., Baltimore, Md.
Baird, Ben D., Galesburg, Ill.
Baker, Arch E., Charleston, S. C.
Baldwin, Addison H., Philadelphia, Pa.
Ball, Francis P., Lock Haven, Pa.
Ballin, Max, Detroit, Mich.
Bandy, Elizabeth R., Philadelphia.
Barker, F. Dale, Dayton, Ohio.
Barrett, Charles E., Ft. Wayne, Ind.
Barkley, A. H., Lexington, Ky.
Barney, J. Dellinger, Boston, Mass.
Barrell, Daniel A., Auburn, Maine.
Baumiun, Eli G., Lancaster, Pa.
Bartlett, C. W., Bennington, Vt.
Bartlett, Willard, St. Louis, Mo.
Bastian, J. W., Wilmington, Del.
Batchelder, W. A., Milwaukee, Wis.
Baugh, A. W., Paoli, Pa.
Baxter, Stephen H., Minneapolis, Minn.
Bay, Robert P., Baltimore, Md.
Beach, William M., Pittsburg, Pa.
Beck, Carl, Chicago, Ill.
Beck, Emil G., Chicago, Ill.
Beckett, W. W., Los Angeles, Cal.
Behle, Augustus C., Salt Lake City, Utah.
Behrend, Moses, Philadelphia.
Bellby, George E., Albany, N. Y.
Bell, G. Franklin, Williamsport, Pa.
Bell, Lloyd J., Millen, Ga.
Benepe, John L., San Jose, Cal.
Bentley, Edwin, Little Rock, Ark.
Berlin, R., Chattanooga, Tenn.
Bevan, Arthur Dean, Chicago, Ill.
Bishop, William Thomas, Harrisburg, Pa.
Bittinger, J. H., Hanover, Pa.
Black, William, Memphis, Tenn.
Blake, Charles P., Baltimore, Md.
Blake, John Bapst, Boston.
Blake, John D., Baltimore, Md.
Blasucci, Ernesto, New York.
Block, J., Kansas City, Mo.
Bloodgood, Joseph Colt, Baltimore, Md.
Boerstler, George W., Lancaster, O.
Bosher, Lewis C., Richmond, Va.
Bottomley, John Taylor, Boston.
Boucher, J. B., Buford City, Ill.
Bowden, David T., Paterson, N. J.
Bowen, A. R., Maquoketa, Iowa.
Boyce, D. W., Allegheny, Pa.
Branch, W. F., Rochester, Minn.
Brant, Austin C., Canton, Ohio.
Bray, Herman A., Philadelphia, Pa.
Brennan, James H., New Rochelle, N. Y.
Brick, J. Coles, Philadelphia.
Brickner, W. M., New York City.
Briggs, C. E., Cleveland, Ohio.
Bristow, Algernon Thomas, New York City.
Bristow, G. M., Princeton, Mo.
Britt, W. Warren, Tonawanda, N. Y.
Brockman, D. C., Ottumwa, Iowa.
Brotherlin, H. E., Hollidaysburg, Pa.
Brown, H. R., Chillicothe, Ohio.
Brown, David Chester, Danbury, Conn.
Brons, Israel, Norfolk, Va.
Brown, J. S., Montclair, N. J.
Brown, Rexwald, Santa Barbara, Cal.
Bruin, M. R., Strasburg, Va.
Bryant, Joseph D., New York City.
Buchanan, J. J., Pittsburg, Pa.
Buehler, William E., Chicago.
Buechner, W. H., Youngstown, Ohio.
Bunnie, John W., Kansas City, Mo.
Brill, H. R., Grand Junction, Colo.
Brinkman, Leon, Philadelphia.
Burkholder, John L., New Castle, Pa.
Burnham, J. Forrest, Lawrence, Mass.
Butler, Joel D., Springfield, Mass.
Buxton, Joseph T., Newport News, Va.
Cale, Geo. W., Jr., St. Louis, Mo.
Calkins, Irving R., Springfield, Mass.
Campbell, A. J., Syracuse, N. Y.
Campbell, William Francis, Brooklyn, N. Y.
Campbell, Alexander Mackenzie, Grand Rapids, Mich.
Canedy, Charles F., Greenfield, Mass.
Cannaday, John E., Charleston, W. Va.
Cannon, T. Harris, Baltimore, Md.
Cantrell, C. E., Greenville, Texas.
Carman, R. D., St. Louis, Mo.
Carmany, Harry S., Philadelphia.
Carnett, J. B., Philadelphia.
Carroll, Albert Hynson, Baltimore, Md.
Carson, George T., Chatsworth, Ill.
Cassady, J. B., Burlington, N. J.
Cathcart, Robert S., Charleston, S. C.
Cavanaugh, Thomas Edward, Milwaukee, Wis.
Chandler, William J., South Orange, N. J.
Cheyne, Walter, Sumter, S. C.
Chilton, J. C., Hannibal, Mo.
Christensen, Christian, La Crosse, Wis.

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1909

Chute, Arthur L., Boston.
Clagett, L. S., Blairsville, Pa.
Clark, W. A., San Leandro, Cal.
Clarkson, J. A., Lewiston, Pa.
Claybrook, E. B., Cumberland, Md.
Clemons, E. Jay, Aberdeen, S. D.
Clifton, Harry C., Hartford, Conn.
Coats, Albert James, Lincoln, Neb.
Cochems, Frank N., Salida, Colo.
Coe, Ben F., Dixonville, Pa.
Cohen, Haskell M., Denver, Colo.
Colcord, A. W., Clairton, Pa.
Cole, Thomas P., Greensburg, Pa.
Collins, Clifford U., Peoria, Ill.
Collins, James, Bristol, Pa.
Collins, J. H., Schenectady, N. Y.
Collins, T. K., Philadelphia.
Combs, George W., Indianapolis, Ind.
Connell, F. Gregory, Oshkosh, Wis.
Connelly, Daniel, Kingston, N. Y.
Conner, Milton C., Middletown, N. Y.
Cook, Charles P., New Albany, Ind.
Cook, George, Concord, N. H.
Cook, H. F., Newark, N. J.
Cooke, A. B., Nashville, Tenn.
Cornish, P. G., Albuquerque, N. M.
Cory, Horace C., Newark, N. J.
Coulthard, G. H., Idaho Falls, Idaho.
Covert, O. F., Moundsville, W. Va.
Cox, Allen E., Helena, Ark.
Craig, Joseph D., Albany, N. Y.
Crain, M. Richards, Rutland, Vt.
Crane, A. A., Waterbury, Conn.
Crawford, G. E., Cedar Rapids, Iowa.
Creveling, J. P., Auburn, N. Y.
Crisler, Julius, Jackson, Miss.
Crook, Jere L., Jackson, Tenn.
Crosby, William D., Washington, D. C.
Crowe, Willis H., New Haven, Conn.
Crowell, A. J., Charlotte, N. C.
Crueger, Edward A., Philadelphia.
Crouch, J. Mott, South Ozone Park, N. Y.
Culbertson, N. W., Massillon, Ohio.
Cummins, T. J., Plattsburg, N. Y.
Cunningham, John G., Spokane, Wash.
Cunningham, W. M., Corona, Ala.
Curran, G. R., Mankato, Minn.
Cushing, Harvey, Baltimore, Md.
Cutts, William B., Providence, R. I.
Da Costa, J. Chalmers, Philadelphia.
Dacey, C. J., Brockton, Mass.
Darrach, William, New York City.
Daugherty, Charles A., South Bend, Ind.
David, V. C., Chicago.
Davidson, Arthur J., Philadelphia.
Davis, George G., Chicago.
Davis, Gwilym G., Philadelphia.
Davis, Lincoln, Boston.
Davis, S. Griffith, Baltimore, Md.
Davison, Charles, Chicago.
Deaver, H. C., Philadelphia.
Deaver, John B., Philadelphia.
Decker, C. J., Washington, D. C.
De Garmo, William B., New York City.
Deibel, H. W., Wilkes-Barre, Pa.
Despard, Duncan L., Philadelphia.
Dick, Andrew J., Watertown, N. Y.
Dixon, Taylor B., Washington, D. C.
Doern, W. G., Milwaukee, Wis.
Dolan, T. C., Elizabeth, N. J.
Dolphin, Benjamin E., New York City.
Donaldson, Walter F., Pittsburg, Pa.
Donald, L. B., Chicago.
Dougherty, A. F., Ashley, Pa.
Dowd, Charles N., New York City.
Drake, H. H., Norristown, Pa.
Draper, Washington, Del.
Du Bose, F. G., Selma, Ala.
Duffield, E. Mortimer, Glassboro, N. J.
Duncan, James A., Toledo, Ohio.
Dunham, Frank, Robinson, Ill.
Dye, Willoughby G., Deer Lodge, Mont.
Earle, Samuel T., Jr., Baltimore, Md.
Earle, Curran B., Greeneville, S. C.
Eberhard, Le Roy C., Akron, Ohio.
Echard, Thomas B., Connellsville, Pa.
Echols, Chester M., Milwaukee, Wis.
Egan, Gregory J., La Crosse, Wis.
Eisenberg, John Lawrence, Norristown, Pa.
Elder, Frank H., Philadelphia.
Ellis, R., Sherman, Texas.
Elsberg, Charles A., New York City.
English, R. M., Danbury, Conn.
Erdmann, A. F., Brooklyn, N. Y.
Eschbach, H. C., Albia, Iowa.
Estes, W. L., S. Bethlehem, Pa.
Evans, G. B., Dayton, Ohio.
Evans, Edward, La Crosse, Wis.
Evans, W. Knowles, Chester, Pa.
Eve, Duncan, Jr., Nashville, Tenn.
Ewens, Arthur E., Atlantic City, N. J.
Fairchild, D. T., Clinton, Iowa.
Farquhar, George W., Pottsville, Pa.
Faris, C. M., Sacramento, Cal.
Farrar, J. D., Philadelphia, Pa.
Faust, William P., Schenectady, N.Y.
Fell, Alex G., Wilkes-Barre, Pa.
Fell, George Edward, Buffalo, N. Y.
Felty, J. W., Hartford, Conn.
Ferguson, Robert Henry, Boston.
Finn, Fred A., Jersey City, N. J.
Finney, J. M. T., Baltimore, Md.
Fisher, V. L., Mt. Vernon, Ohio.
Fleming, J. C., Elkhart, Ind.
Fletcher, Fred, Columbus, Ohio.
Fletcher, M. Ri., Asheville, N. C.
Formad, Marie A., Philadelphia.
Forwood, J. L., Chester, Pa.
Foster, W. Ross, Crafton Sta., Pittsburg, Pa.
Fowler, Harry A., Washington, D. C.
Fox, Frank E., Fulton, N. Y.
Frauenthal, Henry W., New York City.
Franklin, Melvin M., Philadelphia.
Fraser, Charles H., Philadelphia.
Freeman, Leonard, Denver, Colo.
Freligh, C. N., Plum City, Wis.
French, Samuel, Colon, Panama.
Fuller, Eugene, New York City.
Fulton, Z. M. K., Philadelphia.
Fulton, William S., Wheeling, W. Va.
Gable, Isaac G., York, Pa.
Gaines, John A., Nashville, Tenn.
Galehouse, F. C., San Rafael, Cal.
Gant, S. G., New York City.
Gardner, H. D., Scranton, Pa.
Garwood, Harold G., Gorham, Colo.
Gastram, A. H., Remsen, Iowa.
Gaub, Otto C., Pittsburg, Pa.
Gaughan, M. C., Houston, Pa.
Gay, George W., Boston.
Gay, Samuel G., Selma, Ala.
Gensburg, Nate, Philadelphia.
Geraghty, John T., Baltimore, Md.
Germain, Harry Henry, Boston.
Gerrish, M. F., Seymour, Ind.
Giannini, B. E., Coalmont, Ky.
Gibbon, John H., Philadelphia.
Gibby, Herbert H., Wilkes-Barre, Pa.
Gilbride, John J., Philadelphia.
Gillette, William J., Toledo, Ohio.
Gleason, John H., Manchester, N. H.
Glendon, W. P., Yorkville, N. J.
Glidden, Stephen C., Danville, Ill.
Goldspohn, Albert, Chicago.
Goldstein, David D., New York City.
Goldthwait, Joel E., Boston.
Goodhue, George, Dayton, Ohio.
Goodman, Sylvester J., Columbus, Ohio.
Goodwin, E. M., Cleveland, Ohio.
Goodwin, J. J., Clinton, Mass.
Goodwin, William M., Newark, N. J.
Gorman, T. C., Anamosa, Iowa.
Graham, Alois B., Indianapolis, Ind.
Graham, D. W., Chicago.
Graham, Evarts A., Chicago.
Grant, W. W., Denver, Colo.
Graves, Schuyler Colfax, Grand Rapids, Mich.
Graves, William B., East Orange, N. J.
Gray, A. L., Richmond, Va.
Green, Edward D., Brooklyn, N. Y.
Green, Frederick R., Chicago.
Green, H. L., Toledo, Ohio.
Green, G. W., Chicago.
Green, James A., Elizabeth, N. J.
Green, N. W., New York City.
Griffith, Jefferson D., Kansas City, Mo.
Grosmann, John, Utica, N. Y.
Grove, Austin M., York, Pa.
Grube, John E., Punxsutawney, Pa.
Gurvey, Major Samuel C., Manila, P. I.
Guthrie, George W., Wilkes-Barre, Pa.
Guthrie, William A., Franklin, Ky.
Guthrie, William E., Bloomington, Ill.
Gwathmey, James T., New York City.
Gwathmey, Lomax, Norfolk, Va.
Haecker, Lewis E., Hampton, Iowa.
Haggard, William D., Nashville, Tenn.
Hagner, Francis R., Washington, D.C.
Hahn, L. A., Guthrie, Okla.
Haines, F. G., Warren, Pa.
Hales, W. D., Cincinnati, Ohio.
Hammer, A. Wiese, Philadelphia.
Hammond, L. J., Philadelphia.
Harvey, T. W., Orange, N. J.
Harpole, Charles Ray, Evansville, Ind.
Harrington, W. M., Springfield, Mass.
Harris, C. E., Bloomington, Ind.
Harris, M. L., Chicago.
Harrison, A. C., Baltimore, Md.
Harshberger, Alexander S., Lewistown, Pa.
Hartford, P. C., E. Palestine, Ohio.
Hartwell, John A., New York City.
Hartwell, Harry F., Boston.
Hartwig, Marcell, Buffalo, N. Y.
Hatch, Leonard F., Vineland, N. J.
Hauser, Charles D., Youngstown, Ohio.
Hausling, Francis R., Newark, N. J.
Hawkins, A. H., Cumberland, Md.
Hawkins, John A., Pittsburg, Pa.
Hawley, D. C., Burlington, Vt.
Hawley, George W., Bridgeport, Conn.
Haworth, E. B., Pittsburg, Pa.
Heyer, G. C., Milwaukee, Wis.
Heath, Horace, Denver, Colo.
Heazlit, Ledra, Auburn, N. Y.
Hecker, William H., Watseka, Ill.
Hector, William S., Chicago.
Heffner, Oliver H., Pottstown, Pa.
Hendee, Laurence, Buffalo, N. Y.
Hendrick, John A., Shreveport, La.
Hendershot, B. C., New Philadelphia, Ohio.
Henderson, William T., Mobile, Ala.
Henritzy, O. E., Slatington, Pa.
Henson, James W., Richmond, Va.
Herbst, Robert H., Chicago, Ill.
Herrington, W. J., Bad Axe, Mich.
Hertzler, Arthur E., Kansas City, Mo.
Hess, I. T., U. S. Army, Fort Porter, N. Y.
Hetrick, David Jas., Harrisburg, Pa.
Hewson, Addinell, Philadelphia.
Hicks, Horace M., Amsterdam, N. Y.
Higbee, Wm. S., Philadelphia.
Highsmith, J. F., Fayetteville, N. C.
Hill, T. C., Boston.
Hiller, Hiram M., Chester, Pa.
Hirschman, Louis J., Detroit, Mich.
Holden, W. B., Portland, Ore.
Hotchkiss, Norton Royce, New Haven, Conn.
Horsley, J. Shelton, Richmond, Va.
Horwitz, Orville, Philadelphia.
Hough, Garry de N., New Bedford, Mass.
House, Augustus F. Cleveland, Ohio.
Howe, William, Shingle House, Pa.
Howells, James O., Bridgeport, Ohio.
Hoye, Henry J., Providence, R. I.
Hubbell, William B., Elyria, Ohio.
Hume, Arthur M., Jackson, Mich.
Hunt, William J., Glens Falls, N. Y.
Hunter, John W., Lewistown, Pa.
Hutchings, W. H., Detroit, Mich.
Iglehart, Y. E. B., Baltimore, Md.
Inman, Thomas G., San Francisco.
Irvine, William Lorne, Newport, R.I.
Jackson, Jabez N., Kansas City, Mo.
Jackson, Ralph W., Fall River, Mass.
Jacobson, H., Toledo, Ohio.
James, T. A., Ashley, Pa.
Janeway, Henry H., New York City.
Daniel of St. Thomas Jenifer, Atlantic City, N. J.
Jennings, Charles G. R., Elmira, N. Y.
Jerome, M. A., Toledo, Ohio.
John, J. S., Bloomsburg, Pa.
Johnson, C. Radcliffe, Sagada, P. I.
Johnson, M. M., Hartford, Conn.
Johnson, T. B., Frederick, Md.
Jones, Alfred Martin, N. Y.
Jonas, A. F., Omaha, Neb.
Jones, George E., St. Augustine, Fla.
Jones, W. D., Devil's Lake, N. D.
Judd, Edward Starr, Rochester, Minn.
Kahler, J. Frank, Canton, Ohio.
Kane, Charles J., Paterson, N. J.
Kassabian, Mihran K., Philadelphia.
Kean, M. E., Manchester, N. H.
Keefe, John A., Providence, R. I.
Keeler, J. Clarence, Philadelphia.
Kehl, George W., Reading, Pa.
Kelly, W. Webber, Green Bay, Wis.
Kelly, James A., Portland, Ore.
Kennedy, James C., Brooklyn, N. Y.
Kennedy, T. C., Shelbyville, Ind.
Kenneth, A. J., Portland, Ore.
Kern, Albert G., Knoxville, Tenn.
Kickland, W. A., Fort Collins, Colo.
Kilbourn, C. L., New Haven, Conn.
Kimball, Rush W., Norwich, Conn.
King, R. Harrison, Concord, N. C.
King, Parks M., Charlotte, N. C.
Kipps, D. M., Front Royal, Va.
Kirby, Halder C., New Bedford, Mass.
Kirby, Frank J., Baltimore, Md.
Kivlin, C. F., Troy, N. Y.
Kline, Luther B., Catawissa, Pa.
Klump, John A., Williamsport, Pa.
Knapp, H. B., Wyomisco, Pa.
Kneer, Ferdinand G., New York City.
Knickerbocker, H. J., Geneva, N. Y.
Knott, Van Buren, Sioux City, Iowa.
Korsell, C. F. P., Chicago.
Kretchmer, W. S., Omaha, Neb.
Kreinder, George N., Springfield, Ill.
Krouse, Louis J., Cincinnati, Ohio.
Lachner, R. J., Rock Island, Ill.
Lamade, Albert C., Williamsport, Pa.
Landry, Lucian H., New Orleans, La.
Lane, C. E., Poughkeepsie, N. Y.
Langeway, A. F., Great Falls, Mont.
Laplace, Ernest, Philadelphia, Pa.
Larimore, F. C., Mt. Vernon, Ohio.
Lasher, George W., Los Angeles, Cal.
Lathrop, Walter, Hazleton, Pa.
Latta, Samuel W., Philadelphia.
Laws, George M., Philadelphia.
Laws, William V., Hot Springs, Ark.
Leary, William C., Springfield, Mass.
Lee, B. R., Atlantic City, N. J.
Lehr, Louis C., Washington, D. C.
Lemen, L. E., Denver, Colo.
Leonard, Chas. Lester, Philadelphia.
Lervin, S., Chicago.
Lewis, Bransford, St. Louis, Mo.
Lewis, Charles F., Austin, Minn.
Lewisohn, Richard, New York City.
Leytze, Frank C., Sioux City, Iowa.
Lilley, W. M., Brownsville, Pa.
Linthicum, G. Milton, Baltimore, Md.
Linton, William B., Minneapolis, Minn.
Lippincott, A. Haines, Camden, N.J.
Littig, Lawrence W., Iowa City, Iowa.
Livingston, Theodore P., Plattsmouth, Neb.
Lloyd, R. J., Olyphant, Pa.
Locke, Melvin, Bellefonte, Pa.
Loeb, Victor A., Philadelphia.
Long, John Wesley, Greensboro, N.C.
Longaker, Daniel, Reading, Pa.
Longwell, B. E., Johnstown, Pa.
Loper, J. C., Bridgeton, N. J.
Lo Pinto, John, New York City.
Lord, John P., Omaha, Neb.
Loughlen, John C., Olean, N. Y.
Loux, H. R., Philadelphia.
Lower, William E., Cleveland, Ohio
Luce, Thomas W., Portsmouth, N. H.
Lucid, M. M., Cortland, N. Y.
Luther, John W., Palmerton, Pa.
Lydston, G. Frank, Chicago.
Lynch, Charles F., Springfield, Mass.
Lynch, J. C., New York City.
Lyon, Hartwell N., St. Louis, Mo.
MacGowan, Granville, Los Angeles, Cal.
MacKenzie, T. H., Trenton, N. J.
Mackinney, William H., Philadelphia.
McLaren, Archibald, St. Paul, Minn.
MacMillan, J. A., Detroit, Mich.
McManagle, Beverly, San Francisco.
Maclay, A. L., Delavan, Ill.
Magee, M. D'Arcy, Washington, D.C.
Magie, W. H., Duluth, Minn.
Maguire, Francis J. W., Detroit, Mich.
Mahon, John B., Pittston, Pa.
Mahoney, Edward J., Holyoke, Mass.
Mahoney, Stephen A., Holyoke, Mass.
Mallett, E. Preston, Kansas City, Mo.
Maloney, John B., Key West, Fla.
Manassas, Jacob L., Philadelphia.
Mankin, J. W., Thurmond, W. Va.
Mann, Charles H., Bridgeport, Pa.
Mann, James P., Philadelphia.
Marsh, F. L., Mt. Pleasant, Pa.
Marsh, John Henry, Fayetteville, N. C.
Marsh, V. N., Flushing, Ohio.
Marshall, J. C., Atlantic City, N. J.
Marshall, A., Moriah, N. Y.
Martin, Collier F., Philadelphia.
Martin, E. Denegre, New Orleans, La.
Martin, Edward, Philadelphia.
Martin, Frank, Baltimore, Md.
Martin, R. H., Stuart, Iowa.
Martin, William C., Detroit, Mich.
Mason, S. M., Clarksburg, W. Va.
Mason, Will, Jr., Murray, Ky.
Matas, Rudolph, New Orleans, La.
Matheny, A. R., Pittsburg, Pa.
Mattison, Fitch C. E., Pasadena, Cal.
Mattison, James A., Marion, Ind.
Mattox, Harriet L., Terre Haute, Ind.
Maury, J. W. D., New York City.
Mayne, Earl H., Brooklyn, N. Y.
Mayo, C. H., Rochester, Minn.
Mayo, W. J., Rochester, Minn.
McAndrew, P. H., U. S. Army, Manila, P. I.
McAnif, Hugh P., Philadelphia.
McArthur, Lewis A., Chicago.
McCall, H. B., Kansas City, Mo.
McChord, Robert C., Lebanon, Ky.
McClellan, R. R., Xenia, Ohio.
McClenahan, L. P., Paris, Texas.
McDonald, J. W., Fairmont, W. Va.
McGill, Earl P., Wray, Colo.
McGuire, M. F., Montpelier, Vt.
McGuire, Stuart, Richmond, Va.
McGraw, Theodore A., Detroit, Mich.
McHenry, R. F., Heilwood, Pa.
McKee, T. H., Buffalo, N. Y.
McKenna, John A., Lansdowne, Pa.
McKnight, Everett J., Hartford, Conn.
McLean, Angus, Detroit, Mich.
McLoughlin, T. J., Jersey City, N. J.
McMillan, Wm. A., Charleston, W. Va.
McMullen, Charles G., Schenectady, N. Y.
McNaught, F. H., Denver, Colo.
McOscar, Edward J., Ft. Wayne, Ind.
McRae, Floyd W., Atlanta, Ga.
McVety, Albert F., Toledo, Ohio.
McWilliams, C. A., New York City.
Means, W. J., Columbus, Ohio.
Mecray, Paul, Camden, N. J.

Mehlheimer, J. A., Hanover, Pa.
Mengel, S. P., Parsons, Pa.
Meyer, Willy, New York City.
Michler, Henry D., Easton, Pa.
Miles, P. G., New Castle, Pa.
Miller, A. L., Dixon, Ill.
Miller, Morris Booth, Philadelphia.
Miller, S. M., Peoria, Ill.
Miller, S. R., Knoxville, Tenn.
Mills, W. P., Missoula, Mont.
Misenheimer, Charles A., Charlotte, N. C.
Mitchell, Augustus J., Newark, N. J.
Mitchell, Charles F., Philadelphia.
Mitchell, James F., Washington, D.C.
Moe, Anton J., Huron Lake, Minn.
Monahan, J. J., Encampment, Wyo.
Moore, James E., Minneapolis, Minn.
Moore, S. B., Alexandra, Va.
Moriarta, D. C., Saratoga, N. Y.
Morris, Robert Tuttle, New York City.
Morrison, Ephraim, Newton, N. J.
Morrison, J. Bennett, Newark, N. J.
Morrissey, Michael J., Unionville, Conn.
Morton, A. W., San Francisco, Cal.
Mosher, Charles B., Johnstown, N.Y.
Muller, George P., Philadelphia.
Munro, John C., Boston, Mass.
Murphy, Fred T., Boston.
Murphy, John B., Chicago, Ill.
Murray, Dwight H., Syracuse, N. Y.
Murray, T. J., Butte, Mont.
Murray, Ransom H., Flint, Mich.
Nancrede, C. B. G., Ann Arbor, Mich.
Nash, George A., Maryville, Mo.
Neale, Richard A., Chicago.
Newman, Samuel E., St. Louis, Mo.
Nichols, Edward H., Boston.
Nicholson, Joseph, Brainerd, Minn.
Nicholson, Joseph Vanden, N. J.
Nicholson, W. G., Green Bay, Wis.
Nihiser, W. M., Keedyville, Md.
Noonne, A. J., Wheeling, W. Va.
Norwood, E. E., Augusta, N. Y.
Nutt, George D., Williamsport, Pa.
Oates, T. K., Martinsburg, W. Va.
O'Brien, Daniel P., New Bedford, Mass.
Ochsner, A. J., Chicago.
O'Dea, Charles A., Erie, Pa.
Ogden, Chester R., Clarksburg, W. Va.
Ogilvy, Charles, New York City.
Ohlman, I. L., Pittsburg, Pa.
Oliver, John C., Cincinnati, Ohio.
O'Neill, Owen, Willimantic, Conn.
O'Neill, Richard F., Boston.
O'Meara, Mark, Kingston, N. Y.
O'Reilly, Charles A., Philadelphia.
O'Reilly, James Archer, St. Louis.
Orr, Walter, Flint, Mich.
Ort, W. A., Springfield, Ohio.
Owens, W. W., Savannah, Ga.
Page, K. B., New York City.
Palmer, John., Jr., Wilmington, Dela.
Palmer, W. L., Albert Lea, Minn.
Palmer, W. R., Johnsonburg, Pa.
Parker, George H., Trenton, N. J.
Parkes, William R., Evanston, Ill.
Parkhill, C. S., Hornell, N. Y.
Parrish, J. C., Vandalia, Mo.
Paschal, Frank, Dallas, Texas.
Payne, Marshall J., Staunton, Va.
Pease, Clifford A., Burlington, Vt.
Peck, G. S., Youngstown, Ohio.
Peck, Charles H., New York City.
Peck, George Augustus, New Rochelle, N. Y.
Pedersen, Victor C. New York City.
Penning, O. P., Baltimore, Md.
Pennington, J. R., Chicago, Ill.
Percy, J. F., Galesburg, Ill.
Perry, S. W., New Castle, Pa.
Peterlin, G. S., Seattle, Wash.
Peterson, Edward W., New York City.
Pettit, Joseph A., Portland, Ore.
Pfeifer, J. P., Chicago.
Pierce, M., West Elizabeth, Pa.
Pierpont, J. Harris, Pensacola, Fla.
Plimpton, Warren O., New York City.
Plummer, Harry E., New York City.
Pomerene, H. P., Canton, Ohio.
Popp, J. M., New Castle, Pa.
Pope, M. Y., Monticello, Ark.
Porter, Miles F., Ft. Wayne, Ind.
Potter, G. E., Detroit, Mich.
Potter, T. E., St. Joseph, Mo.
Powers, Charles A., Denver, Colo.
Pressbrey, Silas Dean, Taunton, Mass.
Prevost, C. W., Pittston, Pa.
Quinby, William C., Boston.
Quinn, Stephen T., Elizabeth, N. J.
Ragan, G. H. W., Hagerstown, Md.
Rambo, C. M., Zanesville, Ohio.
Ramsay, William E., Perth Amboy, N. J.
Rand, Howard F., St. Helena, Cal.
Randall, H. E., Flint, Mich.
Rasely, E. R., Uniontown, Pa.
Rassieur, Louis, St. Louis, Mo.
Reddan, M. W., Trenton, N. J.
Redfield, Charles L., Middletown, N. Y.
Reed, Robert J., Wheeling, W. Va.
Reeder, J. Dawson, Baltimore, Md.
Reid, William B., Rome, N. Y.
Reilly, John P., Elizabeth, N. J.
Reinohl, D. V., Erie, Pa.
Rendleman, James W., East St. Louis, Ill.
Resch, William S., Phenix, R. I.
Richards, C. A., Rhinelander, Wis.
Richards, C. H., Dunkirk, N. Y.
Richardson, W. E., Slayton, Minn.
Richman, Edward M., Newark, N. J.
Rietz, Paul C., Evansville, Ind.
Robbins, Frederick W., Detroit, Mich.
Roberts, John B., Philadelphia.
Robertson, William M., Warren, Pa.
Robinovitch, Louise G., New York City.
Robinson, Fred W., Sturgis, Mich.
Robinson, Samuel, Boston.
Rockey, A. P., Assumption, Ill.
Rochford, W. E., Minneapolis, Minn.
Rodman, William L., Philadelphia.
Roe, William J., Philadelphia.
Rogers, Mack, Birmingham, Ala.
Ross, Elias G., Scranton, Pa.
Root, Emerson F., Salt Lake, Utah.
Rooth, H. C., Buffalo, N. Y.
Ross, Clyde F., Butte, Mont.
Ross, David, Indianapolis, Ind.
Roth, Henry, New York City.
Roxby, John Byers, Philadelphia.
Royster, H. A., Raleigh, N. C.
Rugh, J. Torrance, Philadelphia.
Russ, Raymond, San Francisco
Rutledge, A. T., Blairsville, Pa.
Ryall, George W., Columbus, Ohio.
Ryan, Lawrence, Chicago.
Sadlier, J. E., Poughkeepsie, N. Y.
Sagerson, John L., Johnstown, Pa.
Sala, E. M., Rock Island, Ill.
Sarles, Wilbur T., Sparta, Wis.
Sawyer, Alfred D., Fort Fairfield, Me.
Saxe, G. A. De Santos, New York City.
Sayle, R. G., Milwaukee, Wis.
Sayre, Reginald H., New York City.
Scattergood, Joseph, West Chester, Pa.
Schachner, August, Louisville, Ky.
Schaubel, Charles W., Philadelphia.
Schapira, S. William, New York City.
Scheel, J. Thompson, Philadelphia.
Schellenger, A. B., Paterson, N. J.
Schluter, Robert E., St. Louis, Mo.
Schoening, Gustav A., Trenton, N. J.
Schoolfield, G. C., Charleston, W. Va.
Scott, A. C., Temple, Texas.
Scudder, Charles L., Boston.
Senn, E. J., Chicago.
Senseman, Theodore, Atlantic City, N. J.
Sexton, Roy, Streator, Ill.
Shaffer, J. W., Youngstown, Ohio.
Shaugle, Milton A., Elizabeth, N. J.
Sharp, Harry C., Indianapolis, Ind.
Shaw, Joseph B., Trenton, N. J.
Sheehan, William J., New Haven, Conn.
Shepherd, Irvin J., Wilmington, Del.
Sherbondy, J. A., Youngstown, Ohio.
Sherk, Henry Howard, Pasadena, Cal.
Sherrer, F. A., Easton, Pa.
Shifferstein, E., Philadelphia, Pa.
Shillito, G. M., Pittsburg, Pa.
Shope, E. L., Harrisburg, Pa.
Shumaker, D. W., Canal Dover, Ohio.
Siegine, J. B., Oil City, Pa.
Silbaugh, John J., Lancaster, Ohio.
Silver, Harry, Hamilton, Ohio.
Silver, Henry Mann, New York City.
Simmons, T. F., Beaver Falls, Pa.
Singley, John D., Pittsburg, Pa.
Skinner, William W., Geneva, N. Y.
Smith, Andrew C., Portland, Ore.
Smith, Charles G., Toledo, Ohio.
Smith, E. R., Los Angeles, Cal.
Smith, E. O., Cincinnati, Ohio.
Smith, Franklin Buchanan, Frederick City, Md.
Smith, Harver F., Harrisburg, Pa.
Smith, Joseph F., Wausau, Wis.
Smith, Oliver C., Hartford, Conn.
Smith, R. R., Jeannette, Pa.
Smith, William T., Hanover, N. H.
Smyth, John, New Orleans, La.
Snyder, Frederick, Rosendale, N. Y.
Sommer, George N. J., Trenton, N. J.
Spencer, G. W., Philadelphia.
Speese, John, Philadelphia.
Spicher, C. C., Lovelay, Pa.
Sprague, S. L. S., Wheeling, W. Va.
Springer, Harold L., Wilmington, Del.
Stadler, Max, Philadelphia.
Stanton, E. MacD., Schenectady, N. Y.
Steiner, Edwin, Newark, N. J.
Stern, Alexander A., Kingston, N. Y.
Stewart, J. Clark, Minneapolis, Minn.
Stickney, Henry Ladd, Manchester, N. H.
Still, D. V., Johnstown, N. Y.
Stillman, Stanley, San Francisco.
Stockwell, William M., Suffield, Conn.
Stokes, A. C., Omaha, Neb.
Strader, H. W., Sacramento, Cal.
Stratton, Robert T., Oakland, Cal.
Streunel, S. C., Macomb, Ill.
Strickler, Abraham H., Waynesboro, Pa.
Strong, S. Meredith, Brooklyn, N. Y.
Sullivan, Daniel F., Hartford, Conn.
Sullivan, Thomas J., Chicago.
Summers, A. T., Mattoon, Ill.
Summers, John E., Omaha, Neb.
Sutton, H. T., Zanesville, Ohio.
Sutphen, Carl E., Newark, N. J.
Sutliff, Van Duyne A., Philadelphia.
Swenson, Carl G., Chicago, Ill.
Swetnam, C. R. K., Poland, Ariz.
Swope, L. W., Pittsburg, Pa.
Syms, Parker, New York City.
Taggart, T. D., Atlantic City, N. J.
Tait, F. Bradley, San Francisco, Cal.
Taylor, Fred W., Provo City, Utah.
Taylor, William Henry, Irwin, Pa.
Teagarden, W. D., Washington, Pa.
Teller, William H., Philadelphia.
Terrell, E. H., Richmond, Va.
Terry, Herbert, Providence, R. I.
Terry, Wallace I., San Francisco, Cal.
Thomas, B. A., Philadelphia.
Thompson, Frederick H., Fitchburg, Mass.
Thompson, Benj., Tama, Iowa.
Thompson, J. Ford, Washington, D.C.
Thomson, Charles E., Scranton, Pa.
Titus, W. S., Mora, Minn.
Townsend, Wisner R., New York City.
Truesdale, Philemon Edwards, Fall River, Mass.
Tucker, Henry, Philadelphia.
Tuckerman, J. E., Cleveland, Ohio.
Tull, G. A., Clay Center, Kan.
Tupper, W. L., Bay City, Mich.
Tuttle, James P., New York City.
Tweedy, J., Windom, Minn.
Umstad, J. R., Norristown, Pa.
Vander Veer, Albert, Albany, N. Y.
Van Meter, S. D., Denver, Colo.
Ver Nooy, C. D., Cortland, N. Y.
Viehe, Carl G., Evansville, Ind.
Van Vrauken, Gilbert, Passaic, N. J.
Waechter, Adolph, New York City.
Wagoner, G. W., Johnstown, Pa.
Wainwright, J. M., Scranton, Pa.
White, Frederick C., Cleveland, Ohio.
Wakefield, S. R., West Salem, Wis.
Walker, Alonzo B., Canton, Ohio.
Walker, Frank B., Detroit, Mich.
Walker, Henry O., Detroit, Mich.
Walker, John B., New York City.
Walscheid, Arthur J., Union Hill, N. J.
Walsh, F. A., Erie, Pa.
Warbasse, J. P., New York City.
Ward, Wm. J., Newark, N. J.
Ware, Martin W., New York City.
Wareham, Edward A., Hagerstown, Md.
Waring, T. P., Savannah, Ga.
Warren, J. N., Sioux City, Iowa.
Waterworth, S. J., Clearfield, Pa.
Watson, William N., Philadelphia.
Watts, Stephen H., University, Va.
Weir, Robert S., New York City.
Weis, Edmund W., Ottawa, Ill.
Weiser, Walter a., Springfield, Mass.
Wellington, J. R., Washington, D. C.
Wells, Ernest A., Hartford, Conn.
Wells, Joseph M., Trenton, N. J.
Welty, E. M., Philadelphia.
Wenzel, Mary, Philadelphia.
West, W. K., Painesdale, Mich.
Wharton, Robert R., Philadelphia.
Whiting, Albert D., Philadelphia, Pa.
Whitacre, Horace J., Cincinnati, O.
Whittle, Charles S., Washington, D.C.
Whiteside, George S., Portland, Ore.
Whitley, Ralph L., Osage, Iowa.
Wieder, Henry S., Philadelphia.
Wiggins, L., E. St. Louis, Ill.
Wiggins, S. L., McKeesport, Pa.
Wight, Otis B., Portland, Ore.
Wilbur, Hubert G., Fall River, Mass.
Willard, De Forest, Philadelphia, Pa.
Williams, T. M., Stanford University, California.
Willis, James C., Shreveport, La.
Wilson, M. M., Warsaw, Ky.
Wilson Charles W., Vineland, N. J.
Wilson, H. Augustus, Philadelphia.
Winslow, Randolph, Baltimore, Md.
Wise, B. T., Jr., Plains, Ga.
Wishard, William N., Indianapolis, Ind.
Witherspoon, James, Pittsburg, Pa.
Wolfe, S. M., Wilkes-Barre, Pa.
Wood, Alfred C., Philadelphia, Pa.
Wood, F. C., Westfield, Wis.
Woolford, J. S. B., Chattanooga, Tenn.
Woods, Edmund F., Janesville, Wis.
Woolsey, R. A., St. Louis, Mo.
Wray, William S., Philadelphia, Pa.
Wright, A. L., Carroll, Iowa.
Wright, Sayre, Paris, Ky.
Wunderlich, Frederick W., Brooklyn, N. Y.
Wyeth, John A., New York City.
Yarbrough, L. A., Covington, Tenn.
Yates, J. L., Milwaukee, Wis.
Yocum, M. G., Mentone, Ind.
Young, Hugh H., Baltimore, Md.
Young, James K., Philadelphia.
Zapffe, Fred C., Chicago, Ill.
Zebel, Alfred J., San Francisco, Cal.

Ophthalmology

Adams, C. F., Trenton, N. J.
Allen, L. P., Oshkosh, Wis.
Alling, Arthur N., New Haven, Conn.
Andrews, Herman D., Buffalo, N. Y.
Arnold, Francis J., Burlington, Vt.
Aronson, Moses, New York City.
Atherton, Andrew L., Atlantic City, N. J.
Ayer, Thomas H., Westboro, Mass.
Babcock, Lewis C., Bethlehem, Pa.
Bailey, Fred D., Brooklyn, N. Y.
Baker, A. B., Cleveland, Ohio.
Ball, M. V., Warren, Pa.
Barney, B. A., Hornell, N. Y.
Bastian, Charles B., Williamsport, Pa.
Bedell, Arthur L., Albany, N. Y.
Beetham, A. C., Bellaire, Ohio.
Berens, Bernard, Philadelphia.
Berry, John C., Worcester, Mass.
Black, J. Milford, Mich.
Black, Melville, Denver, Colo.
Black, Nelson M., Milwaukee, Wis.
Blair, Alexander C., Pittsburg, Pa.
Blair, William C., Pittsburg, Pa.
Bordley, James, Jr., Baltimore, Md.
Bossidy, John C., Boston.
Bowen, Josiah S., Mt. Washington, Md.
Bowers, John W., Portland, Me.
Boyle, James C., Butler, Pa.
Brantley, H., Spring Hope, N. C.
Brawley, R. S., Salisbury, N. C.
Briggs, H. H., Asheville, N. C.
Brobst, Charles H., Peoria, Ill.
Brophy, John A., Philadelphia.
Broughton, Wm. R., New York City.
Brown, E. V. L., Chicago.
Brown, Samuel Horton, Philadelphia.
Bruner, Wm. Evans, Cleveland, Ohio.
Bruns, H. Dickson, New Orleans, La.
Brunson, Randolph, Hot Springs, Ark.
Buchanan, Mary, Philadelphia.
Buckman, Ralph W., Bryant Pond, Me.
Bull, Charles Stedman, New York
Bullett, James B., University, Miss.
Bulson, Albert E., Jr., Ft. Wayne, Ind.
Burnham, R. D., Piqua, Ohio.
Burroughs, Geo. M., Danielson, Conn.
Butler, W. H., Washington, D. C.
Butt, Miriam M., Philadelphia.
Buyinger, Charles W., East Orange, N. J.
Callan, Peter A., New York City.
Cannaday, A. A., Roanoke, Va.
Carrier, Frederic, Philadelphia.
Carroll, James J., Baltimore, Md.
Cary, E. H., Dallas, Tex.
Case, George M., Elmira, N. Y.
Chambers, T. R., Jersey City, N. J.
Chattin, J. Franklin, Trenton, N. J.
Clapp, C. W., Baltimore, Md.
Churchman, Y. T., Charleston, W. Va.
Clark, C. F., Columbus, Ohio.
Clifford, Edward M., Greensburg, Pa.
Cocklin, Charles C., Harrisburg, Pa.
Conklin, Herbert R., Teumseh, Mich.
Connor, Leartus, Detroit, Mich.
Connor, Ray, Detroit, Mich.
Coover, D. H., Denver, Colo.
Corser, John B., Scranton, Pa.
Corson, G. R. S., Pottsville, Pa.
Craig, William G., Springfield, Mass.
Cramer, Alfred, Jr., Camden, N. J.
Crane, C. A., Canton, Ohio.
Craythorn, C. J., Trenton, N. J.
Creighton, William James, Philadelphia.
Crockett, R. L., Oneida, N. Y.
Croskey, John Welsh, Philadelphia.
Cutler, Colman W., New York City.
Dana, L. W., Kane, Pa.
Davidson, John P., Richmond, Va.
Davis, A. E., New York City.
Dean, Lee Wallace, Iowa City, Iowa.

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Deems, O. M., Springfield, Mass.
Deely, George E., Brooklyn, N. Y.
Derby, George S., Boston.
Dixon, George S., New York City.
Donovan, John A., Butte, Mont.
Dowling, Oscar, Shreveport, La.
Duane, Alexander, New York City.
Dunlop, Harley M., Battle Creek, Mich.
Dwyer, William M., Amsterdam, N. Y.
Ellegood, J. A., Wilmington, Del.
Ellett, Edward C., Memphis, Tenn.
Ellis, H. Bert, Los Angeles, Cal.
Embery, Frank, Philadelphia.
Emerson, Linn, Orange, N. J.
Feingold, Marcus, New Orleans, La.
Fleming, George A., Baltimore, Md.
Forst, John R., Philadelphia.
Fox, G. T., Bath, Pa.
Fox, L. Webster, Philadelphia.
Francis, Lee M., Buffalo, N. Y.
Frank, Mortimer, Chicago.
Frankhauser, Fremont W., Reading, Pa.
Franklin, Clarence Payne, Philadelphia.
Freeman, Edward D., Osgood, Ind.
Frey, C. L., Scranton, Pa.
Frichis, George, Philadelphia.
Fridenberg, Percy, New York City.
Frohwein, Ida L. Haverstick-, St. Elizabeth, N. J.
Gates, Aden Clarence, Kingston, N. Y.
Gamble, William E., Chicago.
Getty, Mary, Philadelphia.
Gibson, Robert Dixon, Youngstown, Ohio.
Gifford, H., Omaha, Neb.
Gillman, Robert W., Detroit, Mich.
Goldberg, Harold, Philadelphia.
Green, John, Jr., St. Louis, Mo.
Greene, D. W., Dayton, Ohio.
Griffith, Monte, Washington, D. C.
Grout, Benjamin H., Jr., Buffalo, N. Y.
Hammond, Charles B., Nashua, N. H.
Hancock, James Cole, Brooklyn, N. Y.
Hansell, Howard F., Philadelphia.
Harlan, Herbert, Baltimore, Md.
Harrison, W. G., Birmingham, Ala.
Haskin, H. P., Williamsport, Pa.
Herbert, J. Frederick, Philadelphia.
Hill, Alvin, Philadelphia.
Hegue, Delos W., Springfield, Ohio.
Holden, Ward A., New York City.
Holloway, T. B., Philadelphia.
Howe, E. E., Portland, Me.
Howe, Lucien, Buffalo, N. Y.
Hubbell, Alvin A., Buffalo, N. Y.
Hulen, Vard H., San Francisco.
Hussey, Edw. J., Holyoke, Mass.
Ingalls, James W., Brooklyn, N. Y.
Jackson, Edward, Denver, Colo.
Jacobson, F. C., Newark, N. J.
Jarvis, C. C., Charlesburg, W. Va.
Jean, G. William, Danville, Ky.
Jervey, J. W., Greenville, S. C.
Jones, Charles J., Philadelphia.
Jones, Emmett L., Cumberland, Md.
Jones, Edward W., Newark, N. J.
Jones, Ralph, R., Toms River, N. J.
Kalish, Richard, New York City.
Kaucher, Clifford L., Reading, Pa.
Keelor, Robert N., Browns Mills, N. J.
Keiper, George F., Lafayette, Ind.
Kelly, M. B., Wheeling, W. Va.
Kenson, B. R., Nashville, Tenn.
King, George Lincoln, Alliance, Ohio.
Kipp, Charles J., Newark, N. J.
Kirkendall, John S., Ithaca, N. Y.
Klinedinst, J. Ferd., York, Pa.
Knapp, Arnold, New York City.
Krauss, Frederick, Philadelphia.
Kress, Palmer J., Allentown, Pa.
Kunkle, Wesley P., Williamsport, Pa.
Lacy, W., Lisbon, Md.
Lambert, Walter Eyre, New York City.
Lane, Laura A., Rochester, Minn.
Langford, Theron S., Jackson, Mich.
Law, W. J., New Albany, Ind.
Ledbetter, S. L., Birmingham, Ala.
Leech, James W., Providence, R. I.
Leonard, P. I., St. Joseph,, Mo.
Leopold, Isaac, Philadelphia.
Lewis, F. Park, Buffalo, N. Y.
Libby, Arthur A., Los Angeles, Cal.
Little, Albin H., Portland, Maine.
Lord, Morris S., Schenectady, N. Y.
Lourbery, D. C., Clarksburg, W. Va.
Love, J. King, Easton, Pa.
Love, Louis F., Philadelphia.
Maine, C. L., Helvetia, Pa.
Maisel, Aug. C., Hagerstown, Md.
Marple, Wilbur B., New York City.
Marlow, Frank Wm., Syracuse, N. Y.
Marsden, C. S., Grand Forks, N. Dak.
Marsden, Henry I., Somerset, Pa.
Marsh, W. A., Mt. Pleasant, Pa.
Martin, E. E., Millville, Cal.
Martin, H. H., Savannah, Ga.
Maser, G. W., Parsons, Kan.
May, Charles H., New York City.
May, James W., Kansas City, Kan.
McCabe, Edw. M., New Haven, Conn.
McClenathan, J. C., Connellsville, Pa.
McConachie, Alex. D., Baltimore, Md.
McDavitt, Thos., St. Paul, Minn.
McIntire, Charles, Easton, Pa.
McKinley, Archie T., Philadelphia.
McNaul, W. J., Philadelphia.
Meaner, Wm. C., Beaver, Pa.
Meray, James C., Atlantic City, N. J.
Miles, H. S., Bridgeport, Conn.
Miller, Chas. E., Concie, Ind.
Miller, M. E., Washington, D. C.
Miller, R. F., St. Louis, Mo.
Millette, John W., Dayton, Ohio.
Milnor, Robert H., Warrenville, Pa.
Moore, C. C., Philadelphia.
Moore, G. H., Schuylkill Haven, Pa.
Moore, J. H., Bridgeton, N. J.
Morrison, Frank A., Indianapolis, Ind.
Muncaster, S. B. Washington, D. C.
Murray, G. D., Scranton, Pa.
Nutter, C. F., Nashua, N. H.
O'Brien, John J., Schenectady, N. Y.
Ohly, John H., Brooklyn, N. Y.
O'Malley, Austin, Philadelphia.
Pancoast, J. W., Philadelphia.
Park, J. Walter, Johnsburg, Pa.
Parker, Frank Judson, New York City.
Parker, Walter R., Detroit, Mich.
Payne, S. M., New York City.
Pearson, Wm. W., Des Moines, Iowa.
Pennell, W. J. V., Auburn, Maine.
Peter, Luther C., Philadelphia.
Peterman, H. E., Baltimore, Md.
Pitts, Barton, St. Joseph, Mo.
Pitts, E. P., Jr., Atlanta, Ga.
Polkinhorn, H. A., Washington, D. C.
Pollard, W. M., Atlantic City, N. J.
Pontius, Paul J., Philadelphia.
Pooley, F. R., New York City.
Porter, Edwards H., Tiffin, Ohio.
Posey, Wm. Campbell, Philadelphia.
Price, Geo. H., Nashville, Tenn.
Price, Henry B., Brooklyn, N. Y.
Pusey, Brown, Chicago.
Pyle, Walter L., Philadelphia.
Radcliffe, McCluney, Philadelphia.
Reber, Wendell, Philadelphia.
Rehnick, Chas. H., Harrisburg, Pa.
Reynolds, W. G., Brooklyn, N. Y.
Ring, G. Oram, Philadelphia.
Risley, J. Norman, Philadelphia.
Risley, Samuel D., Philadelphia.
Roberts, W. H., Pasadena, Cal.
Robinson, J. M., Duluth, Minn.
Rodman, C. S., Waterbury, Conn.
Rogers, F. A., Plattsburgh, N. Y.
Rogers, T. T., Providence, R. I.
Rothrock, H. A., West Chester, Pa.
Russell, E. Reid, Charlotte, N. C.
Sartain, Paul J., Philadelphia.
Sautter, Albert C., Philadelphia.
Savage, Giles C., Nashville, Tenn.
Saylor, E. S., Philadelphia.
Scales, J. W., Pine Bluff, Ark.
Schaefer, Otto, Philadelphia.
Schlichter, Chas. H., Elizabeth, N. J.
Schlindwein, G. Wm., Erie, Pa.
Schneideman, Florence Mayo, Philadelphia.
Schneideman, T. B., Philadelphia.
Schweinitz, G. E. de, Philadelphia.
Seaman, Gilbert E., Milwaukee, Wis.
Sears, Wm. H., Huntingdon, Pa.
Shannon, John R., New York City.
Sherman, E. S., Newark, N. J.
Shoemaker, W. A., St. Louis, Mo.
Shoemaker, Wm. T., Philadelphia.
Shope, Samuel P., Harrisburg, Pa.
Shore, F. E. V., Des Moines, Iowa.
Shumway, Edward A., Philadelphia.
Smith, Borland, Bridgeport, Conn.
Smith, C. Tenney, Hartford, Conn.
Smyth, P. Somers, Boston.
Snyder, Walter H., Toledo, Ohio.
Standish, Myles, Boston.
Stevens, Cyrus Lee, Chicago.
Stevenson, David W., Richmond, Ind.
Stevenson, Mark D., Akron, Ohio.
Stieren, Edward, Pittsburg, Pa.
Stiles, Chas. M., Philadelphia.
Strain, Earle, Great Falls, Mont.
Swan, Tyrus E., Easton, Pa.
Sweet, William M., Philadelphia.
Taylor, Lewis H., Wilkes-Barre, Pa.
Taylor, T. M., New York City.
Tenney, John A., Boston.
Theobald, Samuel, Baltimore, Md.
Thorington, James, Philadelphia.
Thorne, James P., Janesville, Wis.
Todd, Frank C., Minneapolis, Minn.
Turner, John R., Philadelphia.
Tyson, R. Raymond, Wilmington, Del.
Tyson, Henry H., New York City.
Upham, Helen F., Asbury Park, N. J.
Valk, Francis, New York City.
Van Horn, Alfred F., Plainfield, N. J.
Verbeeff, F. H., Boston.
Vinton, Charles H., Wernersville, Pa.
Voorhees, Sherman, Elmira, N. Y.
Walter, Will, Chicago.
Webster, Edward A., Pittsburg, Pa.
Wells, David W., Boston.
Wescott, C. D., Chicago.
White, Joseph L., Richmond, Va.
White, Amy E., Chester, Pa.
Whitney, E. M., New Bedford, Mass.
Wible, E. E., Homestead, Pa.
Wiener, Meyer, St. Louis, Mo.
Wilder, Wm. H., Chicago.
Wilkinson, Oscar, Washington, D. C.
Willetts, Joseph E., Pittsburg, Pa.
Williams, Charles H., Boston.
Willis, F. D., Newport News, Va.
Wood, Casey A., Chicago.
Woodruff, Thomas A., Chicago.
Woods, Hiram, Baltimore, Md.
Wurdemann, H. V., Seattle, Wash.
Wylie, E. R., Boston.
Zentmayer, William, Philadelphia.
Ziegler, S. Lewis, Philadelphia.

Laryngology and Otology

Abraham, Joseph H., New York City.
Adams, John L., New York City.
Allport, Frank, Chicago.
Alway, R. D., Aberdeen, S. Dak.
Anderson, Willis S., Detroit, Mich.
Andrews, Lemar M., Warsaw, N. Y.
Babbitt, James A., Philadelphia.
Baldwin, Kate W., Philadelphia.
Barber, Vincent, Brooklyn, N. Y.
Barnhill, John F., Indianapolis, Ind.
Biedert, Charles C., Philadelphia.
Borden, Charles R. C., Boston.
Brown, Clayton M., Buffalo, N. Y.
Bryant, Joseph D., New York City.
Burns, Louis J., Philadelphia.
Burton, Frank Albert, Denver, Colo.
Butler, Margaret F., Philadelphia.
Butler, Ralph, Philadelphia.
Byrne, Thomas J., Philadelphia.
Cadwell, C. T., Poughkeepsie, N. Y.
Carter, William W., New York City.
Casselberry, W. E., Chicago.
Charlesworth, I. E., Bridgeton, N. J.
Cline, L. C., Indianapolis, Ind.
Coakley, C. G., New York City.
Coates, George M., Philadelphia.
Cohen, Isaac, Baltimore, Md.
Colwell, N. P., Chicago.
Corwin, Theo. W., Newark, N. J.
Cott, Geo. F., Buffalo, N. Y.
Craig, Alex. D., Philadelphia.
Cronch, Frank, Baltimore, Md.
Davis, Geo. E., New York City.
Davis, J. Leslie, Philadelphia.
Day, E. W., Pittsburg, Pa.
Delavan, D. Bryson, New York City.
Denison, Charles E., New York City.
De Vilbiss, Allen, Toledo, Ohio.
Dickinson, R. M., Pittsburg, Pa.
Dorlon, H. Stokes, Atlantic City, N. J.
Duel, Arthur B., New York City.
Dufour, C. R., Washington, D. C.
Dunning, Guy M., Lansing, Mich.
Dye, Robert S., Washington, D. C.
Eaton, Albert M., Philadelphia.
Fairbairn, John F., Buffalo, N. Y.
Felt, Carle Lee, Philadelphia.
Fischelis, Philipp, Philadelphia.
Fletcher, J. R., Chicago.
Forsyth, E. A., Buffalo.
Foster, J. M., Denver, Colo.
Fowler, E. P., New York City.
Frets, O. B., Quantown, Pa.
Garraghan, Edward F., Chicago.
Geyer, H. R., Zanesville, Ohio.
Gibb, Joseph S., Philadelphia.
Gilbert, Fred F., Portland, Maine.
Gile, Ben C., Philadelphia.
Gleason, E. B., Philadelphia.
Glogau, Otto, New York City.
Good, H. M., Chicago.
Griffin, Walter A., Sharon, Mass.
Gustiaw, Israel, New York City.
Guntzer, J. H., New York City.
Hartman, J. H., Baltimore, Md.
Hartz, Henry J., Detroit, Mich.
Hirst, Levi B., Camden, N. J.
Hitschler, William A., Philadelphia, Pa.
Holinger, J., Chicago.
Hornbeck, J. L., Catasauqua, Pa.
Hutton, F. C., Philadelphia.
Iglauer, Samuel, Cincinnati, Ohio.
Ingersoll, J. E., Cleveland, Ohio.
Jackson, Chevalier, Pittsburg, Pa.
Johnston, R. H., Baltimore, Md.
Jones, W. S., Camden, N. J.
Kelchner, W. L., Camden, N. J.
Keller, H. H., Hagerstown, Md.
Kepke, John, Brooklyn, N. Y.
Kirkpatrick, A. B., Philadelphia.
Kittredge, Frank F., Nashua, N. H.
Klotzp, E. L., Philadelphia.
Kyle, John J., Indianapolis, Ind.
Layman, D. W., Indianapolis, Ind.
Le Brun, Louis, Albany, N. Y.
Le Gro, L. B., Haverhill, Mass.
Levy, Robert, Denver, Colo.
Lewis, E. R., Dubuque, Iowa.
Loeb, Hanau W., St. Louis, Mo.
Logan, James F., Kansas City, Mo.
Lothian, David H., Easton, Pa.
Lutz, Stephen H., Brooklyn, N. Y.
MacCracken, George Y., Philadelphia.
MacGregor, Charles, Dayton, Ohio.
MacLachlan, A. A., Pittsburg, Pa.
Makuen, G. Hudson, Philadelphia.
Malcolm, P. E. D., New York City.
Marshall, G. M., Philadelphia.
Martinette, J. B., Los Angeles, Cal.
Mauland, H. C., Philadelphia.
Mason, W. M., Atlantic City, N. J.
Mayer, Emil, New York City.
McClelland, L. A., Brooklyn, N. Y.
McDonald, D. J., New York City.
McKimmie, O. A. M., Washington, D. C.
Mercer, Richard E., Detroit, Mich.
Michaelis, Alfred, New York City.
Miller, Albert H., Providence, R. I.
Miller, Clifton M., Richmond, Va.
Miner, Stanley G., Detroit, Mich.
Mitchell, G. W., Baltimore, Md.
Mortimer, W. Golden, New York City.
Murdock, P. H., Boston, Mass.
Murray, W. R., Minneapolis, Minn.
Musson, Emma E., Philadelphia.
Newhart, Horace, Minneapolis, Minn.
Packard, F. R., Philadelphia.
Palmer, E. M., Wichita, Kan.
Parish, Benjamin D., Philadelphia.
Parrish, Henry, Philadelphia.
Pfingst, Adolph O., Louisville, Ky.
Pierce, Norton H., Baltimore, Md.
Pohl, H. C., Nazareth, Pa.
Potts, Barton H., Philadelphia.
Procter, Percy C., Boston.
Pyfer, Howard S., Williamstown, Pa.
Randall, William F., Dushore, Pa.
Rearden, Timothy J., Boston.
Reddie, Jacobina S., Philadelphia.
Reik, Henry O., Baltimore, Md.
Reik, J. N., Baltimore, Md.
Reynolds, J. F., Mt. Sterling, Ky.
Richards, George L., Fall River, Mass.
Robertson, Charles M., Chicago.
Roe, John O., Rochester, N. Y.
Romine, G. L., Lambertville, N. J.
Rosenheim, Sylvan, Baltimore, Md.
Rowand, A. H. C., Philadelphia.
Roy, Dunbar, Atlanta, Ga.
Rupert, Mary P. S., Philadelphia.
Sandels, C. C., Pittsburg, Pa.
Sanger, T. D., Baltimore, Md.
Sauer, William E., St. Louis, Mo.
Scarlett, Rufus B., Philadelphia.
Schaeffer, George C., Columbus, Ohio.
Scholz, Roy Philip, St. Louis, Mo.
Seifert, F. Robert, Philadelphia.
Seiss, Ralph W., Philadelphia.
Shallcross, W. G., Pittsburg, Pa.
Shambaugh, G. E., Chicago.
Sheedy, Bryan D., New York City.
Shipman, Elliott W., New York City.
Shirk, G. W., Cornwall-on-Hudson, N. Y.
Shurly, Burt R., Detroit, Mich.
Shurly, Ernest L., Detroit, Mich.
Simcox, Lawrence, Philadelphia.
Skillern, Ross Hall, Philadelphia.
Shuler, Greenfield, St. Louis, Mo.
Smith, S. MacVean, Philadelphia.
Smyth, Herbert E., Bridgeport, Conn.
Solenberger, Amos R., Colorado Springs, Colo.
Somers, Lewis S., Philadelphia.
Stapler, Maury M., Macon, Ga.
Stauffer, Nathan P., Philadelphia.
Steel, G. E., New York City.
Stimson, G. W., Atlantic City, N. J.
Stout, George M., Philadelphia.
Stout, P. Samuel, Philadelphia.
Stroube, Frederic M., Philadelphia.
Stubbs, F. Gurney, Chicago.
Stucky, J. A., Lexington, Ky.
Sullivan, John T., Boston.
Sutton, Howard A., Philadelphia.
Taylor, Philip, Richmond, Va.
Thigpen, F. M., Montgomery, Ala.
Thomson, John J., New York City.
Thrasher, A. B., Cincinnati, Ohio.
Tomlin, W. S., Indianapolis, Ind.
Toms, S. W. S., Nyack, N. Y.
Turnbull, Thomas, Jr., Allegheny, Pa.
Vansant, E. L., Philadelphia.
Ward, Nathan G., Philadelphia.
Warlow, Margaret A., Philadelphia.
Warren, Wadsworth, Detroit, Mich.
Weintraub, S. Lonise, Philadelphia.
Wells, Walter A., Washington, D. C.
Weltz, Cullen F., San Francisco.
Wiedner, Calvin, Manchester, Conn.
Wiener, Alfred, New York City.
Wilson, Norton L., Elizabeth, N. J.
Wilson, Samuel M., Philadelphia.
Winslow, John R., Baltimore, Md.
Woollen, G. V., Indianapolis, Ind.
Worthington, T. C., Baltimore, Md.
Yankauer, Grace Greenwood Prior, New York City.
Yankauer, Sidney, New York City.

Nervous and Mental Diseases

Arlitz, William J., Hoboken, N. J.
Ayres, Samuel, Pittsburg, Pa.
Bailey, Pearce, New York City.
Beebe, Brooks F., Cincinnati, Ohio.
Benton, G. H., Chester, W. Va.
Bishop, T. W., Pasadena, Cal.
Bond, G. F. M., Yonkers, N. Y.
Booth, David S., St. Louis, Mo.
Boyer, H. P., Philadelphia.
Brush, A. C., Brooklyn, N. Y.
Buckley, Albert C., Philadelphia.
Burley, Benjamin T., Worcester, Mass.
Burr, C. B., Flint, Mich.
Burr, Charles W., Philadelphia.
Burrow, N. Trigant, Baltimore, Md.
Camp, Carl D., Ann Arbor, Mich.
Carpenter, S. A., Phoenixville, Pa.
Chase, R. H., Philadelphia.
Clark, L. Pierce, New York City.
Colt, Paul D., Trenton, N. J.
Congdon, Charles E., Buffalo, N. Y.
Cook, R. Harvey, Oxford, Ohio.
Cotton, Henry A., Trenton, N. J.
Craig, J. M., Lakewood, N. J.
Crothers, T. D., Hartford, Conn.
Dana, Charles L., New York City.
Darling, U. G., Chicago.
Davis, Asa B., New York City.
Davis, W. P., Jr., Atlantic City, N. J.
Dercum, F. X., Philadelphia.
Diller, Theodore, Pittsburg, Pa.
Dewery, W. F., Petersburg, Va.
Dunham, S. A., Buffalo, N. Y.
Dunton, W. R., Jr., Govans, Md.
Eshner, A. A., Philadelphia.
Felty, John C., Trenton, N. J.
Fisher, Edward Irving, New York City.
Fisher, W. E., Middletown, Conn.
Fitzgerald, C. P., Worcester, Mass.
Foley, M. F., Hoboken, N. J.
Free, G. B. M., Parkersburg, Pa.
Gaver, Earl E., Columbus, Ohio.
Goddard, C. C., Leavenworth, Kan.
Gordon, Alfred, Philadelphia.
Gorton, Elliot, Summit, N. J.
Granger, Frank B., Boston.
Grinker, Julius, Chicago.
Gundry, A. T., Catonsville, Md.
Gundry, L. H., Relay, Md.
Haines, J. C., Hammonton, N. J.
Hamilton, A. S., Minneapolis, Minn.
Harding, G. T., Jr., Columbus, Ohio.
Harris, F. R., Henderson, N. C.
Hancker, W. H., Fairhurst, Del.
Hecht, D'Orsay, Chicago.
Hersman, C. C., Pittsburg, Pa.
Hill, S. S., Wernersville, Pa.
Hinsdale, Guy, Hot Springs, Va.
Hitchcock, C. W., Detroit, Mich.
Hodges, J. A., Richmond, Va.
Hoskins, Morgan B., Palmer, Mass.
Hoffman, G. E., Logansport, Ind.
Hughes, Charles H., St. Louis, Mo.
Hummel, E. M., New Orleans, La.
Huntington, George, Hopewell Jct., N. Y.
Ingham, S. D., Philadelphia.
Jones, W. A., Minneapolis, Minn.
Kindred, J. J., Astoria, L. I., N. Y.
King, G. W., Secaucus, N. J.
Kilbourne, Arthur F., Rochester, Minn.
Langdon, F. W., Cincinnati, Ohio.
Mason, L. D., Brooklyn, N. Y.
Mailhouse, Max, New Haven, Conn.
MacDonald, C. F., New York City.
MacNichell, T. A., New York City.
McBride, J. H., Pasadena, Cal.
McCarthy, D. J., Philadelphia.
McCaw, W. J., Providence, R. I.
Mckennan, T. M. T., Pittsburg, Pa.
McKinniss, C. R., Norristown, Pa.
Miesse, K. DeW., Easton, Pa.
Miller, Louis, Toledo, Ohio.
Mills, C. K., Philadelphia.
Molecn, G. A., Denver, Colo.
Moren, J. J., Louisville, Ky.
Newbold, H. A., Philadelphia.
Orth, H. L., Harrisburg, Pa.
Pantlow, W. D., Tuscaloosa, Ala.
Patrick, H. T., Chicago.
Pershing, H. T., Denver, Colo.
Perry, M. L., Lakewood, Kan.
Potts, C. S., Philadelphia.
Pretlow, R. H., Suffolk, Va.
Quee, A. D., Harrodsburg, Ky.
Quimby, A. J., Wheeling, W. Va.
Rainear, E. R., Philadelphia.
Regar, H. K., Philadelphia.
Reed, E. L., Atlantic City, N. J.
Robins, W. L., Washington, D. C.
Rosenwasser, C., Trenton, N. J.
Rutledge, Frances E., Newberry, Mich.
Sachs, Bernard, New York City.
Saunders, C. A., Norfolk, Va.
Scaland, J. M., Warm Springs, Mont.
Scratchley, F. A., New York City.
Shull, John D., Baltimore, Md.
Sinkler, Wharton, Philadelphia.
Smith, Caroline Pike, Philadelphia.
Smith, J. A., Blackwood, N. J.
Spiller, W. G., Philadelphia.
Spink, Mary A., Indianapolis, Ind.
Stack, S. S., Milwaukee, Wis.
Starr, M. Allen, New York City.
Styll, R. T., Newport News, Va.
Taylor, I. M., Morgantown, N. C.
Taylor, J. M., Philadelphia.
Tomlinson, A. B., Rochester, Minn.
Town, E. C., Philadelphia.
Tucker, B. R., Richmond, Va.
Uhls, L. L., Osawatomie, Kan.
Walker, W. K., Dixmont, Pa.
Weeks, D. F., Skillman, N. J.
Wenrich, G. G., Wernersville, Pa.
Werber, Gustavus A., Washington, D. C.
Weisenburg, T. H., Philadelphia.
White, E. P. Corson, Norristown, Pa.
Winter, S. Elizabeth, W. Conshohocken, Pa.
Wolfstein, D. I., Cincinnati, Ohio.
Work, H., Pueblo, Colo.
Woodbury, Frank, Philadelphia.
Woods, Matthew, Philadelphia.
Wyman, B. L., Birmingham, Ala.
Zenner, Philip, Cincinnati, Ohio.

Preventive Medicine and Public Health

Abbott, A. C., Philadelphia.
Adelsberger, L., Waterloo, Ill.
Arnold, W. F., Philadelphia.
Bailhache, P. H., New York City (Stapleton P. O.).
Benbrake, H. X., Chambersburg, Pa.
Bracken, H., Minneapolis, Minn.
Brumby, W. M., Austin, Texas.
Carlisle, R. J., New York City.
Clark, G. H., Waterloo, Iowa.
Clark, Margaret V., Waterloo, Iowa.
Clemmer, J. W., Columbus, Ohio.
Crockett, Sidney S., Nashville, Tenn.
Crowder, T. R., Chicago.
Dithrich, Louise M., New York City.
Donaldson, W. H., Fairfield, Conn.
Dowling, Francis, Cincinnati, Ohio.
Dunn, Wm. LeRoy, Asheville, N. C.
Dutton, W. F., Pittsburg, Pa.
Egbert, Seneca, Philadelphia.
Evans, W. A., Chicago.
Farquhar, Charles, Olney, Md.
Foltz, J. C., Philadelphia.
Freeman, A. W., Richmond, Va.
Friedrich, Martin, Cleveland, Ohio.
Fulton, J. S., Baltimore, Md.
Furbush, C. L., Philadelphia.
Gates, M. F., U. S. Navy, Philadelphia.
Godfrey, E. S., Jr., Tucson, Ariz.
Gorgas, W. C., Ancon, Panama.
Gottschalk, Leon, Chester, Pa.
Graham, J. C., La Porte City, Iowa.
Grassick, James, Grand Forks, N. D.
Guion, Edward, Atlantic City, N. J.
Hachtel, F. W., Baltimore, Md.
Harbaugh, C. H., Philadelphia.
Harris, Seale, Mobile, Ala.
Hemenway, H. B., Evanston, Ill.
Holmes, May S., Worcester, Mass.
Holton, Henry D., Brattleboro, Vt.
Hurty, J. N., Indianapolis, Ind.
Ireland, M. W., U. S. Army, Washington, D. C.
Jaques, W. K., Chicago.
Jones, C. H., Baltimore, Md.
Kean, J. R., U. S. Army, Washington, D. C.
Kelley, E. R., Seattle, Wash.
Kellogg, J. H., Battle Creek, Mich.
Kerr, J. W., Washington, D. C.
Knopf, S. A., New York City.
Linder, Anny W., Chicago.
Lumsden, L. L., Washington, D. C.
McCulloch, C. C., Jr., Washington, D. C.
McPherson, D. M., Washington, D. C.
Montgomery, L., Chicago.
Morrison, G. H., Whitefield, N. H.
Morrow, Prince A., New York City.
Nagle, J. T., New York City.
North, C. E., New York City.
Overholser, M. P., Harrisonville, Mo.
Patton, G. F., New Orleans, La.
Pedigo, S. E. G., Marshfield, Ohio.
Porter, William, St. Louis, Mo.
Price, M. L., Baltimore, Md.
Rankin, W. S., Wake Forest, N. C.
Rosenberger, R. C., Philadelphia.
Royer, R. F., Harrisburg, Pa.
Ruhle, W. A., Washington, D. C.
Russell, F. F., Washington, D. C.
Sanders, W. H., Montgomery, Ala.
Schorer, E. H., Columbia, Mo.
Scofield, W. K., U. S. Navy, Stamford, Conn.
Seaman, L. L., New York City.
Sell, F. W., Rahway, N. J.
Shurtleff, H. C., Philadelphia.
Slack, F. H., Boston.
Stern, C. S., Hartford, Conn.
Sternberg, Gen. G. M., U. S. Army, Washington, D. C.
Stewart, A. H., Philadelphia.
Stewart, M. R., Salt Lake City, Utah.
Stone, W. J., Toledo, Ohio.
Taylor, C. F., Philadelphia.
Valentine, F. C., New York City.
Welch, W. M., Philadelphia.
Wheaton, C. S., Chicago.
White, J. H., New Orleans, La.
Williams, C. F., Columbia, S. C.
Wright, J. W., Erie, Pa.
Wood, Harold B., Philadelphia.
Wyman, Walter, Washington, D. C.

Stomatology

Barsky, Joseph, New York City.
Batten, John Mullin, Downingtown, Pa.
Bogue, Edward A., New York City.
Bogue, Fred L., New York City.
Brennan, John J., Scranton, Pa.
Briggs, Edward Cornelius, Boston.
Brock, R. E., Waynesburg, Pa.
Brown, Ellen E., Chester, Pa.
Brown, George V. I., Milwaukee, Wis.
Bush, Charles B., Orbisonia, Pa.
Casto, Theodore D., Philadelphia.
Crandall, J. B., Sterling, Ill.
Dray, Arthur R., Philadelphia.
Ewen, Warren C., Alloway, N. J.
Filer, B. Boynton, Atlantic City, N. J.
Fisher, William C., New York City.
Gilmer, Thomas L., Chicago.
Gilliland, Caroline J., Sharon, Pa.
Graves, Frederick G., Waterbury, Conn.
Hoff, N. L., Ann Arbor, Mich.
Hussey, Frederic V., Providence, R. I.
Irwin, Alphonso, Camden, N. J.
Jackson, Sarah G., Vineland, N. J.
Johnson, L. W., U. S. Navy, Naval Medical School, Washington, D. C.
Kelley, S. A., Carbondale, Pa.
Kimball, Hannibal H., Minneapolis, Minn.
La Rose, William A., McDonald, Pa.
Maloney, Daniel A., Watertown, Mass.
Metzler, Gottfried, Philadelphia.
McElfresh, C. W., Baltimore, Md.
McNeil, George W., Pittsburg, Pa.
Nyman, John E. Chicago.
Oliver, Robert T., West Point, N. Y.
Power, J. E., Providence, R. I.
Rhein, M. L., New York City.
Rice, Daniel S., Hastings, Pa.
Rice, Charles H., Fitchburg, Mass.
Sands, J. Sheldon, Bristol, Pa.
Schamberg, Morris L., New York City.
Sharp, James G., San Francisco.
Smith, John Fogg, Salem, N. J.
Steinbock, Frederick W., Philadelphia.
Steurer, John A., New York City.
Talbot, Eugene S., Chicago.
Teter, Charles K., Cleveland, Ohio.
Tozier, L. L., Batavia, N. Y.
Trout, N. C., Fairfield, Pa.
Van Buskirk, W. L., Scranton, Pa.
Wendel, W. C., Milwaukee, Wis.
Wilson, James H., Dover, Del.
Zentler, Arthur, New York City.

Dermatology

Abercrombie, John R., Baltimore, Md.
Alderson, M. E., Russellville, Ky.
Alderson, H. E., San Francisco.
Ankrim, L. F., Pittsburg, Pa.
Bathurst, Wm. R., Little Rock, Ark.
Boggs, R. H., Pittsburg, Pa.
Bulkley, L. D., New York City.
Burt, J. C., Pittsburg, Pa.
Campbell, R. H., Chicago.
Casselberry, C. M., Boston.
Chipman, E. D., San Francisco.
Cunningham, J. H., Jr., Boston.
Engman, Martin F., St. Louis, Mo.
Erdman, Bernhard, Indianapolis, Ind.
Farrell, J. T., Providence, R. I.
Finck, E. B., Philadelphia.
Foerster, O. H., Milwaukee, Wis.
Fordyce, J. A., New York City.
Fox, J. F., Bluefield, W. Va.
Fox, G. H., New York City.
Friedrich, L. L., Washington, D. C.
Gaskill, H. K., Philadelphia.
Gnichtel, A. L., New York City.
Grier, G. W., Pittsburg, Pa.
Gold, J. D., Bridgeport, Conn.
Gottheil, W. S., New York City.
Gutshall, F. A., Blain, Pa.
Haase, Marcus, Memphis, Tenn.
Harizell, M. R., Philadelphia.
Hayes, D. P., Milwaukee, Wis.
Hamlin, O. D., Oakland, Cal.
Handly, J. W., Nashville, Tenn.
Harris, Frederick, G., Chicago.
Hay, J. C., Hot Springs, Ark.
Hazen, H. H., Washington, D. C.
Heidingsfeld, M. L., Cincinnati, Ohio.
Hirsch, C. S., Philadelphia.
Hoffman, H. C., Cumberland, Pa.
Johnson, G. C., Pittsburg, Pa.
Johnston, J. M., Huntingdon, Pa.
Katzenstein, G. P., Philadelphia.
Kellogg, J. H., Watertown, N. Y.
Kennedy, D. J., Philadelphia.
Kessler, J. B., Iowa City, Iowa.
Kilroy, Philip, Springfield, Mass.
Knowles, F. C., Philadelphia.
Koehler, H. H., Louisville, Ky.
Langfitt, W. J., Pittsburg, Pa.
Lewis, C. T. Stanton, Va.
Lord, J. W., Baltimore, Md.
Mears, D. W., Scranton, Pa.
Meter, E. G., Reading, Pa.
Montgomery, J. M., San Francisco.
Morrow, Howard, San Francisco.
Murphy, E. S., Dixon, Ill.
Newcomer, M. V. B., Tipton, Ind.
Newman, D., Norwich, N. Y.
Nuzum, T. W., Janesville, Wis.
Ober, G. E., Bridgeport, Conn.
Ochs, B. F., New York City.
Pedersen, James, New York City.
Piffard, H. G., New York City.
Pollitzer, S., New York City.
Potter, Alfred, Brooklyn, N. Y.
Powers, W. A., Chicago.
Randall, B. A., Philadelphia.
Ravogli, Augustus, Cincinnati, Ohio.
Rostenberg, Adolph, New York City.
Ruggles, E. W., Rochester, N. Y.
Schmidt, L. E., Chicago.
Grosse, Alfred B., San Francisco, Cal.
Stelwagon, H. W., Philadelphia.
Stearns, B. W., Unadilla, N. Y.
Sturgis, F. R., New York City.
Swaris, G. T., Providence, R. I.
Townsend, W. W., Rutland, Vt.
Trimble, W. B., New York City.
Tucker, E. D., Toledo, Ohio.
Uhle, Alexander A., Philadelphia.
VanderVeer, James N., Albany, N. Y.
Varney, Henry R., Detroit, Mich.
Wende, G. W., Buffalo, N. Y.
Wheeler, C. L., Lexington, Ky.
White, Frank, Philadelphia.
Wilson, John G., Perth Amboy, N. J.
Wolbarst, A. L., New York City.
Wolf, Alexander S., St. Louis, Mo.
Wyeth, George A., New York City.

Pathology and Physiology

Aaron, Charles D., Detroit, Mich.
Adler, H. M., Boston.
Anderson, John F., Washington, D.C.
Baldwin, Edward R., Saranac Lake, N. Y.
Baldwin, E. C., Rosebank P. O., New York City.
Bergey, David H., Philadelphia.
Cannon, W. B., Cambridge, Mass.
Clark, H. E., Pittsburg, Pa.
Christian, Henry A., Boston.
Caldwell, E. W., New York City.
Colver, B. N., Battle Creek, Mich.
Coplin, W. M. L., Philadelphia.
Councilman, W. T., Boston.
Drake, G. W., Hollins Institute, Virginia.
Dutcher, Adelaide, Syracuse, N. Y.
Elgin, W. F., Glenolden, Pa.
Ellis, Aller G., Philadelphia, Pa.
Gradwohl, R. B. H., St. Louis, Mo.
Haas, S. L., Cleveland, Ohio.
Hamilton, R. A., Washington, D. C.
Henderson, Yandell, New Haven, Conn.
Herzog, Maximilian, Chicago.
Hitchens, A. Parker, Glenolden, Pa.
Hirschfelder, Arthur D., Baltimore, Md.
Hirsh, Jose L., Baltimore, Md.
Hopkinson, Daniel, Milwaukee, Wis.
Jack, George N., Buffalo, N. Y.
Johnstone, O. P., Pittsburg, Pa.
Karsner, Howard T., Philadelphia.

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Knabe, Helene, Indianapolis, Ind.
Kotz, A. L., Easton, Pa.
Leary, Timothy, Boston.
Litterer, William, Nashville, Tenn.
MacCallum, William G., Baltimore, Md.
MacCarty, William Carpenter, Rochester, Minn.
McCleary, Standish, Baltimore, Md.
McFarland, Joseph, Philadelphia.
Meader, Isabel M., Watertown, N. Y.
Meltzer, S. J., New York City.
Miller, Edgar Calvin Le Roy, Detroit, Mich.
Newcomet, William S., Philadelphia.
Park, William H., New York City.
Pritchard, William P., Fall River, Mass.
Randolph, R. L., Baltimore, Md.
Ricketts, H. T., Chicago.
Rosenau, M. J., Washington, D. C.
Shoemaker, Harlan, Philadelphia.
Small, J. Hamilton, Philadelphia.
Smithies, Frank, Ann Arbor, Mich.
Tydings, O., Chicago.
Watkins, Robert L., New York City.
Weaver, George H., Chicago.
Welch, William H., Baltimore, Md.
Wells, H. Gideon, Chicago.
White, Courtland Y., Philadelphia.
Wilson, John D., Philadelphia.
Wilson, R. L., Jeannette, Pa.

Pharmacology and Therapeutics

Abbott, W. C., Chicago.
Beates, Henry, Jr., Philadelphia.
Bremerman, L. W., Chicago.
Brown, A. G., Jr., Richmond, Va.
Burdick, Alfred S., Chicago.
Butler, George F., Wilmette, Ill.
Chamberlin, C. S., Cincinnati, Ohio.
Cohen, Solomon Solis, Philadelphia.
Dunham, H. B., Glen Gardner, N. J.
Eshall, David L., Philadelphia.
England, Joseph Wm., Philadelphia.
Fantus, Bernard, Chicago.
Frace, P. W., Hoboken, N. J.
French, J. M., Milford, Mass.
Fussell, M. H., Philadelphia.
Goodwin, E. J., St. Louis, Mo.
Gordon, Clark H., Trenton, N. J.
Hallberg, Carl S. N., Chicago.
Hatcher, Robert A., New York City.
Hirsh, A. B., Philadelphia.
Holland, James W., Philadelphia.
Howard, Tasker, Brooklyn, N. Y.
Hunt, Reid, Washington, D. C.
Hyde, E. E., Chicago.
Hynson, Henry P., Baltimore, Md.
Jones, Philip Mills, San Francisco.
Kebler, Lyman F., Washington, D. C.
Larned, E. R., Detroit, Mich.
Lawton, Henry C., Camp Hill, Pa.
LeFevre, Egbert, New York City.
Lewis, H. Edwin, New York City.
McCormack, A. T., Bowling Green, Ky.
McCormack, J. N., Bowling Green, Ky.
Marcus, Herman D., Atlantic City, N. J.
Mason, Robert S., Chester, Pa.
Mayo, Thomas J., Philadelphia.
Motter, M. G., Washington, D. C.
Osborne, Oliver T., New Haven, Conn.
Phillips, C. B., Pitman, N. J.
Puckner, W. A., Chicago.
Reilly, Thomas F., New York City.
Remington, Joseph P., Philadelphia.
Robinson, William J., New York City.
Robinson, W. D., Philadelphia.
Rogers, E. B., Collingswood, N. J.
Sajous, C. E. de M., Philadelphia.
Shoemaker, John V., Philadelphia.
Simmons, George H., Chicago.
Stark, Henry R., LaGrange, Ill.
South, Lillian H., Bowling Green, Ky.
Stewart, F. E., Philadelphia.
Stoddard, F. R., Shelburne, Vt.
Taylor, Alonzo J., Philadelphia.
Thrash, M. Clayton, Philadelphia.
Upshur, J. N., Richmond, Va
Van Valzah, J. A., Daytona Beach, Fla.
Wallace, George B., New York City.
Waugh, W. S., Chicago.
Wescott, W. C., Atlantic City, N. J.
Wilbert, M. I., Washington, D. C.
Winner, Jacob L., Baltimore, Md.
Wood, H. C., Jr., Philadelphia.

Diseases of Children

Acker, T. J., Croton-on-Hudson, New York City.
Allin, Frank W., Chicago.
Atkins, George H., Philadelphia.
Bartley, Elias H., Brooklyn, N. Y.
Bauer, Marie L., Philadelphia.
Bennett, William H., Philadelphia.
Black, Robert S., Chicago.
Bowditch, Henry I., Boston.
Boyce, J. Newton, Stanfordville, N. Y.
Bradley, William N., Philadelphia.
Brecker, N. F., Philadelphia.
Brewer, W. C., Columbus, Miss.
Brittingham, James D., Philadelphia.
Brown, Orland J., North Adams, Mass.
Brown, Walter H., Richlandtown, Pa.
Buren, Charles R., Princeton, Mo.
Burbenn, C. G., Jeannette, Pa.
Butler, William J., Chicago.
Butterworth, W. W., New Orleans.
Caughell, Donald, Butte, Mont.
Carr, Walter Lester, New York City.
Cassidy, Paul B., Philadelphia.
Chapin, Henry Dwight, New York City.
Churchill, Frank S., Chicago.
Clark, W. R., East Liverpool, Ohio.
Classen, E. W., Lambertville, N. J.
Coit, Henry L., Newark, N. J.
Connelly, John M., Boston.
Corwin, Arthur I., Rye, N. Y.
Cotton, Alfred Cleveland, Chicago.
Crandall, Floyd M., New York City.
Davis, J. S., Blooming Grove, Texas.
Day, Fessenden L., Bridgeport, Conn.
Dennett, Roger H., New York City.
Dixon, Duncan P., Talladega, Ala.
Dodson, John M., Chicago.
Douglas, Charles, Detroit, Mich.
Dunn, Charles Hunter, Boston.
Dunning, Mary E., Newburgh, N. Y.
Earle, Clarence A., Desplaines, Ill.
Eaton, Percival J., Pittsburg, Pa.
Edwards, J. Gaunt, Williamstown, N. J.
Ellis, G. L., Sherman, Texas.
English, David E., Summit, N. J.
Everhart, James K., Pittsburg, Pa.
Fife, Charles A., Philadelphia, Pa.
Fitzhugh, Henry M., Westminster, Md.
Fraley, Frederick, Philadelphia.
Freeman, Rowland G., New York City.
Furrer, Arnold F., Cleveland, Ohio.
Gengenbach, F. P., Denver, Colo.
Gerstenberger, H. J., Cleveland, O
Gilbert, R. B., Louisville, Ky.
Goolsmann, F., Upperville, Va.
Graham, Edwin E., Philadelphia.
Griffith, J. P. Crozer, Philadelphia.
Hamill, S. McC., Philadelphia.
Hamilton, William V., Philadelphia.
Hand, Alfred, Jr., Philadelphia.
Hanson, D. S., Cleveland, Ohio.
Harral, Walter E., St. Louis, Mo.
Hartman, Lawton, York, Pa.
Hatton, J. Elizabeth, Brooklyn, N.Y.
Henning, Edward R., Bellefontaine, Ohio.
Hess, Alfred F., New York City.
Hillis, R. J., Altoona, Pa.
Hinkle, Charles G., Batesville, Ark.
Hockman, B. F., Sumner, Ill.
Holbopeter, W. F., Philadelphia.
Holmes, Arthur D., Detroit, Mich.
Howland, John, New York City.
Jacobi, Abraham, New York City.
Jenett, John H., Canandaigua, N.Y.
Johnson, Washington, D.C.
Johnstone, Mary M. S., Chicago.
Jones, Arch D., Wichita, Kan.
Keating, W. P. Stuart, Willimantic, Conn.
Kelly, Michael, Fall River, Mass.
Kelley, Samuel W., Cleveland, Ohio.
Kennedy, Lucius C., Scranton, Pa.
Kerley, Charles Gilmore, New York City.
Kerr, Le Grand, Brooklyn, N. Y.
Knipe, Reinoehl, Norristown, Pa.
Koplik, Henry, New York City.
Labbe, Edmond J., Portland, Ore.
Lackner, Ernest, Chicago.
Le Boutillier, Theodore, Philadelphia.
Leech, Frank, Washington, D. C.
Levi, I. Valentine, Philadelphia.
Lewis, Bertha, Malvern, Pa.
Little, George F., Brooklyn, N. Y.
Lopez, Joseph H., Philadelphia.
Loughran, Frederic W., New York
Ludlum, Walter D., Brooklyn, N.Y.
McAlister, Alexander, Camden, N. J.
McClanahan, H. M., Omaha, Neb.
McCorkle, W. P., Pittsburg, Pa.
McEntire, O. W., Howard, Pa.
McEwen, Floy, Newark, N. J.
McKee, James B., Philadelphia, Pa.
McVea, Charles, Baton Rouge, La.
Mercer, A. Clifford, Syracuse, N. Y.
Middleton, M. W., Jr., New York City.
Miller, D. J. M., Atlantic City, N. J.
Miller, John B., Sligo, Pa.
Mills, H. Brooker, Philadelphia.
Morse, J. L., Boston.
Newbecker, Minerva M., Ord, Neb.
Newlin, Arthur, Philadelphia.
Noonan, C. J., Brooklyn, N. Y.
Orr, Winnett H., Lincoln, Neb.
Ostheimer, Maurice, Philadelphia.
Pinneo, Frank W., Newark, N. J.
Pisek, Godfrey R., New York City.
Piskorski, Avdon V., Jersey City, N. J.
Polozker, Isaac Louis, Detroit, Mich.
Porteous, E. J., Atlantic City, N. J.
Potter, Philip S., North Adams, Mass.
Price, Henry T., Pittsburg, Pa.
Putnam, Helen C., Providence R. I.
Radisch, Julius, New York City.
Roberts, Frederick C., Easton, Pa.
Rosenthal, Edwin, Philadelphia.
Rotch, Thomas Morgan, Boston.
Rowland, R. S., Detroit, Mich.
Royster, L. I., Norfolk, Va.
Ruhrah, John, Baltimore, Md.
Ryan, Granville N., Des Moines, Ia.
Schrade, Anna M., Erie, Pa.
Schister, Belle A., Philadelphia.
Scott, Charles R., Belvidere, Ill.
Scott, George Ibow, New York City.
Sedgwick, J. P., Minneapolis, Minn.
Shaw, Henry L. K., Albany, N. Y.
Sherk, H. H., Camden, N. J.
Sill, E. Mather, New York City.
Silver, Lewis M., New York City.
Snyder, A. E., New Milford, Pa.
Southworth, Thomas S., New York City.
Sprague, Frances R., San Francisco.
Staunton, Florence I., Utica, N. Y.
Stern, Arthur, Elizabeth, N. J.
Tate, Robert W., Bolivar, Tenn.
Tierney, Charles F., Toledo, Ohio.
Thomas, J. J., Cleveland, Ohio.
Todd, Francis H., Paterson, N. J.
Tow, Johanna E., Chicago.
Townsend, H. S., Buffalo, N. Y.
Tracy, George T., Beverly, N. J.
Tuers, George E., Paterson, N. J.
Vanderhoof, F. D., Phelps, N. Y.
Van Derslice, J. C., Oak Park, Ill.
Van Gaasbeek, George H., Kingston, N. Y.
Wahrer, C. F., Ft. Madison, Iowa.
Wallin, Alfred C., New York City.
Weibel, E. G., Erie, Pa.
Welburn, W. C., Bollston, Va
Weston, William, Columbia, S. C.
Whitney, H. B., Denver, Colo.
Wilson, James W., Philadelphia.
Wister, James W., Philadelphia.

Miscellaneous

The following failed to indicate preference for any section, or marked more than one, on the registration card:

Belville, Frank, Delaware City, Del.
Berner, David, Atlantic City, N. J.
Beyer, W. F., Punxsutawney, Pa.
Blake, Charles H., Newark, Del.
Blanchard, George W., Highland Falls, N. Y.
Blauvelt, G. F., Nyack, N. Y.
Blundell, William, Paterson, N. J.
Bratton, H. O., Columbus, Ohio.
Burgess, MacD. Delta, Colo.
Castelli, Enrico, New York City.
Clark, George G., Philadelphia.
Dalsimer, Leon, Philadelphia.
Drinkwater, W. G., Gormania, W. Va.
Diverty, Henry B., Woodbury, N. J.
Dundon, A. H., Plainfield, N. J.
De Laffre, S. M., Columbus Barracks, Ohio.
Earle, J. B., Greenville, S. C.
Eisenberg, P. Y., Norristown, Pa.
Emmerling, C. H., Pittsburg, Pa.
English, David C., New Brunswick, N. J.
Fleming, Thomas J., Philadelphia.
Fowlkes, Frank Vaughan, Burkeville, Va.
Fox, W. H., Waucoma, Iowa.
Glidden, C. H., Little Falls, N. Y.
Green, Herbwyn R., Providence, R. I.
Grube, J. Miles, Punxsutawney, Pa.
Harden, Albert Scott, Newark, N. J.
Hargrove, W. F., Kinston, N. C.
Hebb, Arthur, Baltimore, Md.
Herrman, M. F., Philadelphia.
Hirshfield, Leonard, Baltimore.
Houghton, Charles W., Philadelphia.
Hunsicker, Hannah M., Olney, Philadelphia.
Jamieson, Robert A., Detroit, Mich.
Jensen, Thomas, Spring Grove, Minn.
Karpeles, M. J., Philadelphia.
Kerr, J. P., Pittsburg, Pa.
King, J. E., Richmond, Ind.
Lane, T. B., East Orange, N. J.
Laverty, O. C., Middletown, Pa.
Lawrence, Florus F., Columbus, Ohio.
Lenow, James H., Little Rock, Ark.
Lovett, Henry Langhorn, Pa.
Lownes, John B., Philadelphia.
Lyaght, Ellen, Brooklyn, N. Y.
Mahaffey, J. Lyn, Camden, N. J.
Manges, Willis F., Philadelphia.
Marshall, George W., Milford, Del.
McComb, Samuel F., Tarentum, Pa.
McCurdy, Stewart S., Pittsburg, Pa.
McKeldin, R. A. W., Philadelphia.
Metzler, V. W., Atlantic City, N. J.
Modell, Daniel A., Philadelphia.
Montgomery, R. C., Youngstown, O.
Norton, F. D., Columbus, Ind.
Nute, Marion, Boston.
Pancoast, Henry K., Philadelphia.
Patterson, James A., Colorado Springs, Colo.
Porteus, J. S., Taylor, Pa.
Price, F. F., Carbondale, Pa.
Putnam, James J., Boston.
Purdy, William H., Mt. Vernon, N. Y.
Raymond, Katharine P., Wellesley, Mass.
Schmitt, A. Emil, Riverdale-on-Hudson and New York City.
Scott, B. F., Terra Alta, W. Va.
Scott, W. S., Chillicothe, Ohio.
Seiberling, Frank C., Allentown, Pa.
Shimer, A. Burton, Atlantic City, N. J.
Shimer, Will, Wanamaker, Ind.
Shively, Jesse, Boulder, Colo.
Sier, Richard, Nanuet, N. Y.
Stanef, Demetrius, Chicago.
Steiner, D. W., Lima, Ohio.
St. John, David, Hackensack, N. J.
Taylor, A. Miles, San Francisco, Cal.
Turner, J. P., Greensboro, N. C.
Van Korb, William, Philadelphia.
Wills, William L., Los Angeles, Cal.
Waite, Henry R., New York City.
Wallace, H. R., Chicago.
Warren, John S., New York City.
Wehlan, Alma L., Scranton, Pa.
Welch, E. H., Winsted, Conn.
Wilson, G. de Foix, Spartanburg, S. C.
Wolfort, Benjamin E., Brooklyn, N. Y.
Wymore, W. W., San Francisco, Cal.
Young, G. B., Chicago.

Guests

Partial list of invited guests and others in attendance from outside the United States or outside the medical profession (not including those admitted to dental, pharmaceutical and associate membership). A complete list can not be given as many did not register.

Lane, W., Arbuthnot, London, Eng.
Beebe, S. P., New York City.
Dow, William, Regina, Sask.
Darling, Dr. Samuel T., Ancon Hospital, Canal Zone.
Grant, Sir James, Ottawa, Canada.
Gutteras, Juan, Havana, Cuba.
Harmer, Gerold, London, England.
Lauterman, M., Montreal, Canada.
Nonne, Max, Hamburg, Germany
Pernet, George, London, England.
Powell, N. A., Toronto, Ontario.
Seymour, W. F., Tengchowfo, China.
Treble, Charles E., Toronto, Ontario.
Weigert, med. Kurt, Freiburg im Breisgan, Germany.
Wright, John D., New York City.

Marriages

HARRY S. MCGEE, M.D., to Miss Gladys E. Tuthill, both of Douglas, Ariz., June 14.

JOHN R. BOSLEY, M.D., U. S. Army, to Miss Gerda Danielson, at Seattle, May 26.

OLIVER F. MERSHON, M.D., to Miss Goldie May Small, both of Philadelphia, April 28.

JOHN H. JOPSON, M.D., to Miss Susannah B. Michener, both of Philadelphia, June 7.

THEODORE BANGE, M.D., Cincinnati, to Miss Bess Carnahan of Blanchester, Ohio, June 9.

SANKEY BACON, M.D., U. S. Navy, to Miss Elizabeth Taggart, of Washington, June 16.

SPENCE REDMAN, M.D., to Miss Myrtle Higgins, both of Platte City, Mo., April 15.

ALBERT W. GARREN, M.D., to Miss Hattie W. Burnham, both of Philadelphia, June 23.

HUGH MCDOWELL BEEBE, M.D., Sidney, Ohio, to Miss Ruth Pearson of Troy, Ohio, recently.

MATHEW A. REASONER, M.D., U. S. A., to Miss Mabel Sparks Milnor of Litchfield, Ill., June 10.

CLAUD N. SMITH, M.D., Clinton, N. C., to Miss Dora H. Tew, at Richmond, Va., June 17.

JOHN R. BURLESON, M.D., Hamilton, Ala., to Mrs. Carrie Dodd of Hackleburg, Ala., June 7.

HOMER BRANDEL SMITH, M.D., Boston, to Miss Gertrude Day Jerome of New York City, recently.

ARTHUR WILLARD FAIRBANKS, M.D., Boston, to Miss Edythe Clarke of Brookline, Mass., June 19.

JAMES D. CAREY, M.D., Timnath, Colo., to Miss Florence Josephine Stover of Chicago, June 9.

THEODORE HOUGH, M.D., Charlottesville, Va., to Miss Ella Guy Whitehead of Richmond, June 12.

EDWIN A. SANBORN, M.D., Somerville, Mass., to Miss Blanche A. Smith of Lowell, Mass., June 8.

LEROY D. HOWARD, M.D., Fairmont, W. Va., to Miss Edna Pearle Sturgis of Smithfield, Pa., June 23.

JAMES BARNARD HASTINGS, M.D., Alton, Ill., to Miss Elizabeth Norris Morgan, at Alton, Ill., June 15.

ROBERT A. SCHLERNITZAUER, M.D., Cocoa, Fla., to Miss Ruth Hardee of Rock Ledge, Fla., June 16.

LEE WASHBON PRESCOTT, M.D., Sloan, Iowa, to Miss Sarah Estella Thompson of Cresco, Iowa, June 9.

FRANK WHEELER HORNBROOK, M.D., to Miss Anna Maria Kelley, both of Tobyhanna, Pa., June 19.

WALTER T. VENN, M.D., to Miss Maude Eagleston, both of Aurora, Ill., at Crown Point, Ind., June 16.

GEORGE E. MALSBARY, M.D., Cincinnati, Ohio, to Miss Norma Helwig of Clifton, Ohio, at Piqua, Ohio, June 13.

LEWIS ALMOND HARMON, M.D., Marshall, Mich., to Miss Ethel Anna Conley of San Antonio, Texas, June 23.

JOHN C. MCLAUGHLIN, M.D., Norwich, Conn., to Miss Rebecca E. Thompson, at Ellicott City, M.D., June 3.

Deaths

Justin Steer, M.D. New York University, New York City, 1876; a member of the American Medical Association; professor of clinical medicine and later professor of internal medicine in Washington University, St. Louis; physician to Mullanphy Hospital and associate attending physician to the St. Louis Skin and Cancer Hospital; was found dead in bed at his home in St. Louis, June 20, from the effects of chloroform and hydrocyanic acid, taken with suicidal intent while mentally deranged from overwork, aged 60. The members of the faculty of Washington University Medical Department acted as honorary pallbearers at the funeral.

Thomas Padon Wilson, M.D. Cleveland University of Medicine and Surgery, 1857; formerly president of the Pulte Medical College, Cincinnati, and professor of therapeutics in the University of Michigan Homeopathic Medical College, Ann Arbor, for many years editor of the *Medical Advance*, Chicago, and later a resident of Detroit, Mich.; died at the home of his daughter in Upper Montclair, N. J., June 23, from paralysis, aged 78.

Lucian Lavassa Leeds, M.D. Rush Medical College, Chicago, 1856; a member of the American Medical Association and Brainerd District Medical Society; for fifty-seven years a practitioner of Illinois; city councilman of Lincoln; for twenty-six years a member of the board of education, and for twelve years its president; died at his home in Lincoln, June 19, aged 78.

George Washington Stoyer, M.D. Western Pennsylvania Medical College, Pittsburg, 1903; a member of the American Medical Association; formerly attending physician to Buhl Hospital, Sharpsville, Pa.; was found dead in his office in Three Forks, Mont., June 18, from the effects of an overdose of morphin, aged 33.

Hugh Ferguson, M.D. New York University, New York City, 1858; a member of the Massachusetts Medical Society; for about thirty years a member of the attending staff of Carney Hospital; one of the oldest practitioners of South Boston; died at his home, June 13, from intestinal disease of long standing, aged 72.

George William Mosier, M.D. Jefferson Medical College, Philadelphia, 1886; of Morristown, N. J.; formerly a police surgeon of Philadelphia; and visiting physician at the German Hospital; died in All Soul's Hospital, Newark, N. J., June 9, after an operation for peritonitis, aged 51.

Neil Donald Gunn, M.D. McGill University, Montreal, 1888; formerly a member of the American Medical Association; of Montreal, Que., and Pasadena, Cal.; died at his home in Pacific Grove, Cal., June 4, from burns received in an explosion of benzine, the day before, aged 46.

Andrew M. McCabe, M.D. Western Pennsylvania Medical College, Pittsburg, 1897; a member of the Medical Society of the State of Pennsylvania and of the staff of St. Francis Hospital, Pittsburg; died at his home in Allegheny, June 13, from acute gastritis, aged 37.

John L. Dismukes, M.D. University of Pennsylvania, Philadelphia, 1856; a member of the Kentucky State Medical Association; surgeon in the Confederate service during the Civil War; died at his home in Mayfield, Ky., June 16, from senile debility, aged 78.

William Pitt Norris (license, Iowa, 1887); a practitioner since 1873; and a member of the Iowa Railway Surgeons' Association and the Tri-State Medical Society; died at his home in Birmingham, Iowa, February 3, from cerebral hemorrhage, aged 57.

Louis Thornton Wilson, M.D. Harvard Medical School, Boston, 1902; of Boston, Mass.; a member of the American Medical Association; assistant visiting surgeon at the Boston City Hospital; died in that institution, June 17, from pneumonia, aged 32.

William Henderson Reynolds, M.D. University of Alabama, Mobile, 1885; of Union Springs; a member of the Medical Association of the State of Alabama; physician of Bullock county; died in St. Margaret's Hospital, Montgomery, June 19, aged 52.

Lenox E. Newman, M.D. Memphis (Tenn.) Hospital Medical College, 1908; of Meadville, Miss.; died June 17, in the Chamberlain Sanitarium, Natchez, Miss., from gunshot wounds received in a feud fight at Meadville, June 14, aged 22.

Joseph Hallanan, M.D. Cincinnati College of Medicine and Surgery, 1870; of Logansport, Ind.; a member of the Indiana State Medical Association; died in the State Hospital, Longcliffe, June 16, from hypertrophy of the heart, aged 58.

Thomas Dabney Hare, M.D. Jefferson Medical College, Philadelphia, 1854; president of the Bowie county, Texas, board of U. S. Pension Examining Surgeons; died at his home in Greenville, June 2, from disease of the liver, aged 59.

Robert R. Murray, M.D. Atlanta (Ga.) Medical College, 1859; a Confederate veteran, and later a member of the state legislature; died suddenly at his home in Powder Springs, Ga., June 18, from cerebral hemorrhage, aged 72.

George Sherwood Means, M.D. University of Buffalo, N. Y., 1897; a member of the Medical Society of the State of New York; assistant surgeon N. G. N. Y.; died at his home in Geneva, June 14, from kidney disease, aged 39.

Samuel K. Harriman, M.D. Eclectic, Philadelphia, 1871; Jefferson Medical College, Philadelphia, 1883; of Providence, R. I.; died in the Rhode Island Hospital in that city, June 20, after an operation for appendicitis, aged 63.

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Lorenzo D. Coombs, M.D. Hahnemann Medical College, Chicago, 1875; Chicago Homeopathic Medical College, 1879; a veteran of the Civil War; died at his home in Ypsilanti, Mich., June 20, from heart disease, aged 73.

Joseph O'Grady, M.D. Bellevue Hospital Medical College, New York City, 1883; for many years connected with the Brooklyn health department; died at his home in Brooklyn, June 22, from cerebral hemorhage, aged 56.

Franklin L. Powell, M.D. Cincinnati College of Medicine and Surgery, 1884; of Seattle; a member of the Washington State Medical Association; died in the Providence Hospital in that city, May 28, from diabetes, ageu 60.

Joseph S. Eaton (years of practice, Minn.); a veteran of the Civil War; and for more than forty years a practitioner of Benson, Minn.; died at his home, Jan. 18, 1908, from paralysis, due to spinal injury, aged 65.

Harvey Newton Dale, M.D. Eclectic Medical Institute, Cincinnati, 1856; Bennett Medical College, Chicago, 1876; a pioneer practitioner of Rice county, Minn.; died at his home in Faribault, June 13, aged 79.

Ogden D. Phillips, M.D. Western Reserve University, Cleveland, 1881; for more than fifty years a practitioner of Fremont, Ohio; died at his home in that city, June 12, from disease of the bladder, aged 73.

Nimrod A. Spencer, M.D. (license, Mo., 1883); a member of the Missouri State Medical Association; died at his home in DeWitt, Mo., June 6, from the effect of a self-inflicted gunshot wound of the brain, aged 65.

Martin Caraballo, M.D. University of Havana, Cuba, 1882; of Tampa, Fla.; a member of the American Medical Association; died in the Hospital of the University of Maryland, Baltimore, June 9, aged 50.

Eva McPhee Lewis, M.D. Hahnemann Medical College, Chicago, 1896; of San Diego, Cal.; a member of the Medical Society of the State of California; died at the Agnews Sanitarium, June 9, aged 38.

William H. Jones (license, Tenn., 1896); for many years a member of the board of U. S. Pension Examining Surgeons of Hancock county, Tenn.; died at his home in Sneedville, Tenn., June 14, aged 84.

Horace A. Paxton, M.D. College of Physicians and Surgeons, Baltimore, 1878; of Buffalo Forge, Va.; a Confederate veteran; died at the home of his nephew in Lexington, Va., June 12, aged 66.

Benjamin C. Sympson, M.D. (license, Ky., 1894, thirty-three years' practice); Kentucky School of Medicine, Louisville, 1860; died at his home in Mardis, Ky., June 6, from senile debility, aged 81.

Clarence M. Dodge, M.D. New York University, New York City, 1877; a member of the New Hampshire Medical Society; died at his home in Manchester, June 19, from cerebral hemorrhage, aged 62.

Monroe S. Leech, M.D. Eclectic Medical Institute, Cincinnati, 1871; Rush Medical College, Chicago, 1882; a veteran of the Civil War; died at his home in Chicago, June 24, from nephritis, aged 61.

Legare L. Hargrove, M.D. University of Maryland, Baltimore, 1891; of Deanes, Va.; died in the Sara Seigh Hospital, Norfolk, Va., June 16, after an operation for cholangitis, aged 40.

John Hislop, M.D. Jefferson Medical College, Philadelphia, 1892; a member of the Kansas Medical Society and a pioneer practitioner of Smith county; died at his home in Lebanon, June 10.

George Eaton Adams, M.D. University of Virginia, Charlottesville, 1904; a member of the American Medical Association; died at his home in Fort Worth, Texas, June 16, aged 26.

Isaac Sanford Curtis, M.D. Medical School of Maine, Brunswick, 1872; for several years postmaster of Topsham, Maine; died suddenly at his home in Brunswick, Maine, June 9, aged 70.

Albert Caleb Blanchard, M.D. Rush Medical College, Chicago, 1895; of Linden, Wis.; a member of the American Medical Association; died in Madison, Wis., June 19, aged 36.

John D. Quill, M.D. New York Homeopathic Medical College, New York City, 1876; died at his home in Wallingford, Conn., June 18, from tuberculosis of the brain, aged 62.

Richard C. Hammond, M.D. College of Physicians and Surgeons, Baltimore, 1878; died at his home in Burleigh, Ellicott City, June 13, from cerebral hemorrhage, aged 55.

Hugh White Griffith, M.D. University of Nashville, Tenn., 1874; for eight years physician of Marion county, Tenn.; died at his home in Jasper, May 25, aged 70.

Archibald Monroe Newman (license, Miss.); of Meadville, Miss.; clerk of the chancery court of Franklin county; was shot and killed in a feud at Meadville, June 14.

Holland L. Anderson, M.D. University of Louisville (Ky.) 1894; died suddenly from pulmonary hemorrhage, at his home in San Angelo, Texas, June 13, aged 40.

Robinson J. Peak, M.D. University of Louisville, Ky., 1877; formerly of Owenton, Ky.; died in Mount Pleasant, Mich., May 26, 1909, from nephritis, aged 51.

Thomas Cosgrove, M.D. Detroit (Mich.) Medical College, 1871; formerly of Sylvania, Ohio; died at his home in Toledo, June 11, from nephritis, aged 75.

Richard Edgar Grier, M.D. How rd University, Washington, 1894; a pioneer colored practitioner of Albany, Ga.; died at his home in that city, June 13.

E. M. Davenport, M.D. Louisville (Ky.) Medical College, 1875; died at his home in Midland, Ark., June 9, from cerebral hemorrhage, aged 57.

William Andrew Chatterton, M.D., a homeopathic practitioner of Elgin, Ill.; died in that city, May 26, from angina pectoris, aged 68.

Willis Spencer Snedigar, M.D. Cooper Medical College, San Francisco, 1890; died at his home in Stockton, Cal., June 10, from appendicitis.

Francis Asbury Sproles, M.D. Knoxville; of Big Stone Gap, Va.; died at Benham's, Va., June 30, 1908, from tuberculosis, aged 40.

George Lloyd Mackelcan, M.D. McGill University, Montreal, 1860; died at his home in Hamilton, Ont., June 10, aged 74.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

THE ASSOCIATION OF STATE SECRETARIES AND EDITORS OF STATE JOURNALS

Its Important Functions in Maintaining Effective Organization in State Societies

E. J. GOODWIN, M.D.,
ST. LOUIS

The formation of the Association of State Secretaries and State Journal Editors was accomplished at the meeting of the American Medical Association in Chicago, in 1908, and a definite plan adopted for outlining the objects and purposes of the association. Such an organization has before it the prospect of becoming the most powerful of all the auxiliary bodies of the executive department of the American Medical Association, in furthering the accomplishment of the reforms that the reorganized medical profession has undertaken in behalf of doctor and of the people.

Including in its membership, as it does, the secretaries of the state associations, who are in direct, constant and intimate communication with the county society secretaries; and the editors of the state journals, whose work brings them also into the closest relation with the county society secretaries, it must be apparent that the responsibility of maintaining harmonious, active and effective county societies rests largely on the members of this body; and that without numerous county societies, actively engaged in the work of advancing the objects of organized medicine, the state associations will be correspondingly weak and unprogressive, with the resultant derogatory effect on the American Medical Association, whose power and influence would be thereby weakened and curtailed.

It then becomes the first and most important function of the Association of State Secretaries and Editors to foster the strength of the county medical societies in each of the states represented; for the county society is the foundation on which our whole scheme of organization is built. We must have, therefore, strong, aggressive and progressive

county societies, and the time should come, and come soon, when, through the deliberations of this association, all state associations can offer their members certain specific and personal benefits accruing from the membership in the organization. Let us not fix our vision on the distant horizon, where Utopia lies and physical perfection is the unearned heritage of all, forgetting, the while, that physicians now endure many unnecessary hardships because of misapprehension, misconstruction, unbelief, and even ingratitude, on the part of the people. It is our duty to conserve the health of the nation and to prevent disease; but it is not less our duty to protect ourselves and be prepared to assist each other in the time of adversity that comes to most of us at some period in our career.

When the state journal was first established, it was thought that it alone would be a sufficient inducement to cause a rapid access in membership of the state association, since the payment of dues in the county society included subscription to the journal; and there was a high increase in the number of members. But this attraction did not prove alluring enough to very many reputable practitioners, and they remained outside the county society. Later, in some states, it was found feasible and proper to offer, as an additional benefit to be derived by membership, the assistance of the association in defense against civil suits for alleged malpractice. This added benefit has drawn a great many into the local societies who were not willing to acknowledge that simple organization, with its humanitarian objects, was sufficiently beneficial to themselves to require affiliation with the county society.

In all the states that publish journals subscription to the journal has been extended without an extra assessment over the regular annual dues, and of those states which provide for medical defense this privilege is secured without an increase of dues. In other states, however, this privilege is secured only on the payment of an added sum, either by increasing the dues or by special levy. In every case, however, it has strengthened the state association, and, as we grow in numbers and in influence, other benefits can be offered as inducements to join the local societies which this association can advocate and advise to be adopted by the state associations.

Since the state journal is the mouthpiece of the state association and the medium of communication between its members, it should be in all respects a journal of information, primarily devoted to the interests of its own state organization. We have not yet passed the transition stage in our process of organization, and, therefore, the journal should exert all its influence toward strengthening the county society and the state association. In furthering this object, its first duty is to the county society. The editor of the state journal should watch the workings of the county society quite as closely as does the secretary of the state association, and see that full publicity is given to those societies whose proceedings mark them as being good examples of the beneficial results of organization.

There are three highly important objects which the county society should aim to attain, namely, (1) to enhance the quality of the scientific work of its members, as in the preparation of papers, the presentation of specimens and patients, and in the discussion following such proceedings; (2) to increase the political influence of the county society in all legislative matters pertaining to the public health, and (3) to instruct its members in improved methods of medical economics.

All these objects are being accomplished concomitantly with medical organization, but only incidentally and slowly. THE JOURNAL of the American Medical Association is constantly emphasizing the importance of these three phases of county society work, but their study has not been seriously undertaken by county societies generally. In the matter of improved scientific work we already see what can be accomplished by the postgraduate course established by Dr. Blackburn. There will be an equally great amount of good come from an increase of the political influence of the county societies, and the establishment of a better system of economies in the management of the business affairs of the doctor. We must not forget, in our enthusiastic and creditable labor in behalf of the people, that the people have been somewhat negligent of the doctor; therefore, while we are teaching them how to protect themselves from sickness, let us also teach them how to respect and appreciate the physician. It should be one of the prime duties of the editors of the state journal to keep before the members of the association the necessity of studying these three phases of county society work.

One of the most important functions of the state journal is the fostering of a spirit of cooperation between the daily press and the medical profession toward the elimination of quackery and charlatanism in medicine. This will be a hard and long battle, no doubt, but we believe that in the end we shall gain our desires. The nauseating, filthy, suggestive advertisements which formerly appeared in all newspapers, are not as prevalent as they were before the reorganization of our profession; but much still remains to be done in order to bring newspaper publishers to a proper understanding of the harm these persons do, and the state journals should be foremost in this work. In fact, the time is fast approaching when newspapers will welcome a system of censorship on all medical advertisements and news matter of a medical nature, and this association can and should assume the duty of hastening this time by formulating some method of supervision which would be acceptable to the owners and editors of the daily papers.

Unaided by a properly trained medical assistant, newspaper men can not discern a scientific discovery of real value as a medicinal measure from the blatant boasting of some far-away quack; hence they publish all medical items without scrutinizing their source or the probable object of their authors. We believe there is a disposition on the part of the editors of the better class of newspapers to adopt such a system, if it can be made plain to them that they are too often purveyors of false and unscientific matter, prepared solely for advertising some humbug disguised as a respectable doctor or institution.

If this matter is undertaken seriously and with the spirit of offering mutual advantages, and the protection of the public from fraudulent imposition, it would lead to another desirable phase of press cooperation, now totally lacking, or assumed usually in a spirit of levity, and hence, inaccurately and inadequately done; I refer to the publicity given to state medical association meetings. As a rule, the local paper, in the town where the meeting is held, gives a half column or so, but no telegraphic reports are sent to other parts of the state. It would be much to the advantage of the profession if its proceedings were given wider publicity and the real results of its deliberations published, although, of course, always under censorship of some competent member of the society.

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Society Proceedings

COMING MEETINGS

American Ophthalmological Assn., New London, Conn., July 14-15.
Idaho State Medical Association, Seattle, Wash., July 19.
Oregon State Medical Association, Seattle, Wash., July 19.
Washington State Medical Association, Seattle, July 20.

AMERICAN SURGICAL ASSOCIATION

Annual Meeting held at Philadelphia, June 3-5, 1909

The President, DR. C. B. G. DE NANCREDE, Ann Arbor, Mich., in the Chair

Address of the President: Extirpation of Scapula for Malignant Disease

DR. C. B. G. DE NANCREDE, Ann Arbor, Mich.: The statistics dealing with extirpation of the scapula are misleading, because cases which are primary in the scapula and secondary in the soft parts, operations which are done in two stages, and those performed for benign growths, for caries, injury and tuberculous disease, are all included in the statistics usually given. Indeed, in one paper, a case in which the scapula was removed after death was included. There is no discrimination

in any of the tables between operative recovery and the end-results, investigation showing that a large number of patients who are reported as having recovered have later died of recurrence of the trouble. The three-year rule has been ignored in like manner, for it is well known that this is utterly unreliable for any form of malignant disease. One patient had an inoperable recurrence at the end of five years, yet this was included by the reporter as a recovery. Recurrences are often the source from which generalization takes place. Careless examination of the patient and the expectation of finding marked difference between the physical signs in the two lungs often lead to the opinion that pulmonary metastases have not occurred, the true explanation being that metastases are so numerous and so small and finely distributed that the physical examination is unreliable. The death rate probably is now lower with the new methods of operating, saving blood and preventing shock, and it is possible therefore that some of those who died in the past from shock and hemorrhage might have shown a few permanent cures if they had survived. It is a matter for future investigation to determine whether interscapulo-thoracic amputation would not give more permanent recovery. The usefulness of the upper extremity after the removal of the scapula is usually so good that, of course, hesitation is felt about doing the operation just mentioned in which the whole upper extremity is ablated. The details given in the tables seem to warrant the above conclusions. There is only one case on record in which the details were obtainable sufficiently long to prove that it is really a cure, the patient being entirely well at the end of eight years. A few more were probably cured, although not reported long enough to be past the time that recurrences have been noted. A vast number of those who are said to be cured have been observed from only a few weeks to a few months and then lost sight of. Operation for pure enchondroma and other diseases demanding excision of the scapula present favorable results.

Chronic Intestinal Stasis

MR. W. ARBUTHNOT LANE, London, England, referred to his earlier communications on this subject, with special reference to the removal of the colon for chronic constipation and described the technic of the operation:

In nine cases I have removed the colon, and of this number one patient died from the rupture of a small abscess in the original cavity. In a number of private cases division of the hilum at its junction with the bowel was effected, with no death from the operation *per se*. Removal of the large bowel is a serious operation; but the danger attending its performance varies with the degree of toxemia. I do not, however, recommend or advise such a radical operation until all other measures, medicinal and hygienic, have been tried. The danger of the operation can be reduced very materially by the subcutaneous injection of a large quantity of normal salt solution immediately before operation.

DISCUSSION

DR. J. C. BLOODGOOD, Baltimore: Chronic constipation has in some instances an anatomic basis. I would call attention to the use of the *x*-ray and injection of bismuth as a method of diagnosis in these cases. I believe this method will be used more frequently in the future in the class of cases under discussion as it is used now in cases of aneurisms, bone lesions, etc. Recently I operated on a patient who for three years had had pain in the lower abdomen. On exposing the right side some of the adhesions referred to by Mr. Lane were found, and on exposing the left side the sigmoid could be lifted out of the abdomen as easily as one could lift out a loop of the small intestine. The anatomic lesion in this case was an enlarged sigmoid from fecal matter. The sigmoid itself was normal. The mesentery was normal. These adhesions were separated with good results. In another case the adhesions were more pronounced. In this case the bowel was not resected, the patient being relieved by medical treatment. There is no difficulty in resecting the intestine and performing lateral anastomosis, but if one can demonstrate early in the cases a band or adhesion or the anatomic condition, and medical treatment will relieve it, more good will be done than by resecting the sigmoid.

DR. THOMAS W. HUNTINGTON, San Francisco: It has seemed to me for many years that many of these cases of enteroptosis, bearing especially on the large bowel, can be avoided by two things: 1. Careful attention in early life to the emptying of the bowel. In a large number of people in the hands of the average general practitioner a more or less permanent accumulation of fecal matter in the large bowel has been overlooked. 2. I believe this accumulation of fecal matter is due to a definite cause. Take, for instance, an appendix which has not given rise to the ordinary symptoms, it has caused sufficient irritation to interrupt the peristaltic wave and to bring about a condition of the bowel which is extremely disastrous in the carrying of residual material. Careful attention in early life to the emptying of the bowel will obviate the possibility of the occurrence of prolapse of the sigmoid, and by loosening up the large bowel and changing its environment or its relation we may avoid early operation for a pathologic condition which exists. Careful study and search for the pathologic condition, as an obscure appendix, will enable us to escape from the latter consequences which the author has portrayed.

DR. ARTHUR DEAN BEVAN, Chicago: As I understand Mr. Lane, he makes a plea for operative intervention in cases of chronic constipation. I should insist on intestinal obstruction before I should undertake such an operation as the removal of a part or the whole of the colon for chronic constipation. The large and small bowels perform their functions admirably sometimes in spite of extensive adhesions. That is evident after many operations. We should discuss this as a sort of borderline subject in which in our cases we should call into consultation the internists. What would internists think of surgeons if they took the position of treating chronic constipation by resection of the large intestine or by anastomosis? Most of these cases can be much better handled by our internists by exercise, hygiene, etc., than by extensive surgical operation. Personally, I protest against advocating an operation so extensive as the removal of the colon for chronic constipation itself, and should insist on reserving the operation for absolute intestinal obstruction.

DR. JOHN F. BINNIE, Kansas City, Mo.: As I understand, Mr. Lane only advocated this operation for chronic intestinal stasis after all other measures of treatment had failed. I have practiced cecostomy in a number of these cases with fair temporary results, but have not observed the patients sufficiently long to determine whether the results will be permanent or not.

DR. JOHN B. ROBERTS, Philadelphia: I must agree partly with what Dr. Bevan has said, because of some recent experience I have had with intermittent obstruction of the bowel due to kinks and various other causes; but I realize that Mr. Lane does not propose to open the abdomen of everybody for the relief of chronic constipation. After the internists have failed to afford relief to these patients by exercise, medical, and dietetic measures, then surgical operations may do good in the class of cases discussed.

DR. MAURICE H. RICHARDSON, Boston: We must approach the surgery of the large intestine in cases of this kind, as Dr. Bevan says, from the symptomatology of chronic intestinal obstruction. We all see cases of complete chronic intestinal obstruction which demand a most thorough radical operation. In one of my cases of complete volvulus of the sigmoid which threatened life the sigmoid filled the whole abdomen, producing an acute obstruction of the bowel which necessitated operation.

DR. W. B. COLEY, New York: Every severe case of acute intestinal obstruction requires operation, and the operation is attended with great danger. Of nine patients operated on, death followed in every case. I reported a case of volvulus of the sigmoid to the New York Surgical Society, which was preceded by attacks of chronic intestinal obstruction, ending with an acute obstruction. I operated on the patient on the ninth day, when he was almost moribund, with great distension of the abdomen, high pulse, elevated temperature, etc. I opened the abdomen under cocain anesthesia (as he could not stand a general anesthetic) over the sigmoid, relieved the obstruction, and the man recovered.

MR. A. LANE: I wish it to be distinctly understood that this form of operative treatment is suggested only after all other measures have failed.

(To be continued)

AMERICAN ACADEMY OF MEDICINE

Thirty-fourth Annual Meeting, Hotel Dennis, Atlantic City, N. J., June 5-7, 1909

(Continued from page 212, Vol. LII)

Rational Medical Education Will Supply Physicians Adequate for the Entire Field of Practice

DR. LEARTUS CONNOR, Detroit: In studying the products of our educational system, I find: 1. The fresh products are rarely welcomed by the people. 2. These products lack evidence of a training based on a broad study of the entire field of family medical practice, or logical adjustment of indisputable facts. 3. These products exhibit an embarrassment of undigested facts and theories; an inability to utilize the best methods of managing the simplest forms of disease; an initiative crippled by efforts to train them as family physicians and specialists, by the same machinery, at the same time; and individual antagonism instead of mutual cooperation. There is need for system of education able to produce two classes of medical colleges, text-books, and medical literature adapted to training two classes of doctors, viz., the family physician, and the unlimited practitioner. The only rational standard for judging a system of medical education is its fitness to supply those products that most meet the needs of the entire medical field. I suggest that the organized profession determine exactly what the family physician can be trained to do, and how much, in each simple disease and beginnings of the complex, without interfering with like training in any other disease. This, state boards of registration can require of applicants for license; authors make easy of access through text-books; medical societies discuss; medical colleges teach; and medical journals keep before physicians until it become the accepted guide for medical education. A rational system calls for teachers trained in the profession of teaching as well as in that of medicine, and institutions saturated with the pedagogic spirit, method and practice. It is the clear obligation of the organized profession to promote the evolution of such rational system of medical education.

DISCUSSION

DR. CHARLES MCINTIRE, Easton, Pa.: Dr. Connor's paper shows how we are failing, and if I mistake not, educators in other fields are conscious of an analogous shortcoming. Prof. A. H. Chamberlain of the Throop Polytechnic Institute writes: In these institutions (technical colleges) men must be prepared, not alone to carry out the will of another; not simply to be exact machines to execute the plans presented to them. The products of these schools must possess initiative, imagination, individuality; they must be experts, leaders, investigators, executives; they must plan and lead, not follow merely; they must create as well as construct. And to secure this end he pleads not for earlier specialization but for broader culture. It would seem that these words afford a clue to the general problem—our training has been toward specialization too exclusively, and to teach it all within the university courses. We are trying to make expert practitioners instead of training men that they may become physicians. Abraham Flexner in his "The American College" writes: "The important thing is to realize that the American college is deficient, and unnecessarily deficient, alike in earnestness and in pedagogical intelligence; in consequence our college students are, and for the most part emerge, flighty, superficial and immature, lacking, as a class, concentration, seriousness and thoroughness. While James P. Munroe, in *World's Work* for May, formulates a severe arraignment against the high school. And there is hardly a diagnostician of the ills of our educational system that does not lay some of the blame for the pathologic condition to a faulty management of the scholar in the "grades."

DR. A. RAVOGLI, Cincinnati: I disagree with Dr. Connor on the advisability of having a school for the practitioner and another school for the specialist. The specialist must first be a thorough physician in order to become a specialist. Regarding the question of how much anatomy a man must know when he comes out of the college, I should say he must know anatomy from the bones to the skin, and from the feet up to the brain. The same is true of physiology. The members of the medical examining boards are perfectly right: We have no limitations. We may ask questions in every part of medicine and every candidate must answer these questions. We must put the state examinations on a practical basis and require the applicants to practice medicine to show us that they are able to make diagnoses and to practice medicine in order to relieve human suffering.

DR. J. P. SCOTT, Hagerstown, Md.: I think that the projection of two classes of physicians would be destructive to medical education as such. My experience in registration and licensure in Maryland convinces me that there is an attempt to do too much educating and not enough education given. I find that the men of to-day occupying prominent places are men who received their education under the old methods. Dr. Connor received his a number of years ago. Education does not stop at the medical college, but the man receives there the ground work for his training.

DR. H. A. TOMLINSON, St. Peter, Minn.: I have read recently in connection with some excavations in Asyria of the finding of a tablet which contains some criticism of the practice of physicians over six thousand years ago which, in a general way, are very like those we hear to-day. There are two general classes of men; one which is satisfied with the acquisition of facts; another, which is not satisfied, except with the relation of facts to each other. It seems to me that as human nature has never yet been changed, the progress of medical education will continue to be a matter of evolution and of compromise.

DR. EDWARD JACKSON, Denver: There are forces of disintegration at work with strong tendencies to break up the medical profession into separate bodies. The most familiar instance is that in connection with the "optometrists," as they wish to be called. They will have a separate profession unless the medical profession as a whole becomes more familiar with that field. That is, I think, what Dr. Connor has in mind. It is only possible that the medical profession shall remain a united profession by carefully going over the whole subject of medicine, and deciding what ought to be common knowledge and what ought to be left to specialization.

DR. L. CONNOR: Family practice is a lost art. I would do what I could to replace that family practice, to enable a man to meet satisfactorily the medical needs of a family from the cradle to the grave. The proposition I make would do that, with the aid of the specialist to be sought when a case passes beyond his knowledge and technic.

Report of the Committee to Draft a Medical Practice Act

DR. CHARLES MCINTIRE, Easton: The essential ideas to be kept in mind in framing a medical practice act are:

1. The law is for the protection of the people.
2. That it should provide but one executive body to supervise the law.
3. It should present an accurate definition of the practice of medicine.
4. It should specify the educational qualifications both general and professional for the applicant.
5. The board should have the power to test the applicant to see if he has made proper use of his educational advantages.
6. Liberal provision should be made for the representatives of all shades of opinion on the board, not of right, but of policy. Mixed boards do not weaken the efficiency of the board.
7. The law should supervise those who have been licensed, revoke the licenses of those who cease to be safe practitioners and should have provisions enabling the board to seek out and to punish those who attempt to practice without legal right.
8. It is desirable that a different test should be provided for those who have been in practice than for those just in practice. A provision should be made whereby a license can be issued after an examination of the record and previous licensure in another state to an applicant without a formal examination of the applicant himself.
9. The members of the board being employed by the state to exercise police duty should be sufficiently remunerated by the state, independently of the license fees. These should be put into the state treasury as part of its income.
10. The principles on which the restrictions of the act are based should be stated with care and exactness but in such a manner as to give the board the greatest liberty in the execution of

them that it may be able to adapt itself to contingencies arising under a rearrangement of conditions.

11. In view of the apparent "political pull" of the osteopath, it may be well to have provisions for a limited license for those desiring to practice only in part.

Report of the Delegate to the Association of American Medical Colleges

DR. CHARLES MCINTIRE, Easton: Judging from the part of the meeting that I was able to attend it must have been one of the most successful and profitable of the meetings held under the auspices of the association. The representatives of the various colleges seemed to be sincere and in earnest, and when they differed they differed frankly. With this spirit there is a field for increasing usefulness on the part of the association. It needs the support of some of the stronger institutions, many of whom were formerly affiliated with it, although of more rigid requirements than those of the association. The requirements now are such that there should be the helping cooperation of all worthy medical schools. I hope the academy will accept the invitation already extended to send a delegate to the next meeting, which is to be held in Baltimore in March, 1910.

Report of the Committee to Arrange a Conference with Educators

DR. CHARLES MCINTIRE, Easton: Your committee recommends:

1. That the attention of the medical profession be called to the desirability of permitting medical schools to receive properly qualified students into advanced standing for the studies included in the first two years of the medical course, and that they be urged to secure a modification of the law permitting medical colleges to certify to the student's completion of the studies of the first two years independent of the length of time and residence in a medical college and that this recommendation be sent especially to the state societies and the boards of medical examiners.

2. That the Council of Medical Education of the American Medical Association be requested to formulate the preliminary and graduation requirement of the medical course in terms of work done after due consultation with educators and others interested, as suggested by the paper of Dr. Jackson.

3. That the Academy records as its opinion that there is great danger to the college of arts in our country by the prevailing idea that it is not a place for earnest effort on the part of the student. The result of this delusion was shown time and time again in discussion similar to those conducted by your committee. Unless there is a change in the purpose of those pursuing the college course, there is danger of the impairment of the usefulness of the college for all but the idler.

4. That the Academy appoint a committee to formulate the requirements of admission preserving the principles underlying the present wording but adapting them to the educational procedure of the day.

(To be continued)

AMERICAN PEDIATRIC SOCIETY

Annual Meeting, held at Lenox, Mass., May 27-28, 1909

(Continued from page 1919, Vol. LII)

Danger to the New-Born from Gas Heaters

DR. A. W. SAUNDERS, St. Louis, called attention to the danger to the new-born of the ordinary gas heaters used in rooms and reported several cases of illness in children due to this cause.

DISCUSSION

DR. SAMUEL S. ADAMS, Washington, reported a distressing calamity which occurred in Washington during the past winter in which the mother, wife and baby of a government clerk lost their lives from this cause, being suffocated by the carbon monoxid formed by what is known as "backfire." He felt that there was considerable danger in these gas heaters unless certified to by an inspector of meters.

Spasmodic Stenosis of the Esophagus Demonstrated by the *X*-Ray

DR. L. E. LAFETRA, New York, presented this paper, exhibiting *x*-ray photographs which showed perfectly the site of the stricture.

DR. THOMAS MORGAN ROTCH, Boston, reported one case occurring in the lower part of the esophagus before the day of the Roentgen ray when physicians were afraid to pass a sound. Postmortem examination showed a perforation of the sac.

Influenza—The Part It Plays in Hospital Infections; the Value of Cultures as a Means of Diagnosis; Influenza Carriers

DR. L. EMMETT HOLT, New York: Three hundred and twelve cultures were made from one-hundred and ninety-eight persons. The bacilli of influenza persisted in the bronchial secretions and the observations showed an association of the influenza and pneumococcus. In many if not in most cases we have to deal with a mixed infection. It seems certain that there is such a clinical entity as influenza. Otitis media occurred in some cases as a complication and was most frequently due to the staphylococcus. The bronchi seemed to be the habitat of the bacillus.

DISCUSSION

DR. T. M. ROTCH, Boston, hoped that the investigations would lead to further work of this kind, as there was much to be learned about this disease which needed to be dealt with in exactly this way—with careful cultural examinations.

DR. JOHN HOWLAND, New York, thought that there was no reason for calling the Pfeifer bacillus the influenza bacillus. He believed that it was not the cause of the clinical entity influenza. There was a large group of allied organisms some of which could cause influenza.

DR. HENRY KOPLIK, New York, some time ago took regular routine cultures from every child for diphtheria bacilli and found that of 300 children who presented normal throats 35 showed the diphtheria bacilli.

DR. ISAAC ABT, Chicago, referred to a hospital epidemic of diphtheria, the origin of which was difficult to trace until cultures had been taken, when one of the nurses was found to have a number of the bacilli in the throat.

DR. S. MCC. HAMILL, Philadelphia, thought the relationship between the clinical manifestations and the association of the influenza bacillus could not be questioned.

DR. T. S. SOUTHWORTH, New York, thought that however much diversity of opinion might exist as to the exact organism responsible there was no question that there existed a clinical entity called influenza and that the condition was the source of epidemics in hospitals. He also thought there was no doubt about the infectiousness of the cases and advocated prompt isolation.

DR. MILLER, Atlantic City, referred to an epidemic in his hospital in which one of the residents had the bacilli in his throat for six or eight weeks, and later developed the disease.

DR. L. E. LAFETRA, New York, referred to the tendency of the aural surgeon to perform the mastoid operation too frequently in these cases in which fluctuation of the temperature was the only indication.

DR. C. G. KERLEY, New York, emphasized the point brought out by Dr. LaFetra and said he would not have his patients operated on unless there was other evidence of the disease aside from temperature.

Report of a Case of Long-Standing Empyema; Race as a Predisposing Factor in Empyema

DR. ALFRED HAND, JR., Philadelphia: The case reported was that of a girl 3½ years old, weighing 8 pounds and 14 ounces; from the history it seemed probable that the empyema had existed for about 20 months. A study of the statistics of the children's hospital of Philadelphia for 10 years showed that the number of empyemas in white children is about 10 per cent. of that of the pneumonias; in colored children the empyemas are less than 1 per cent. of the pneumonias; but 3 in these cases unnecessary and that it causes deformity.

DISCUSSION

DR. R. G. FREEMAN, New York, thought resection of the rib in these cases unnecessary and that it causes deformity of the chest.

DR. SAMUEL S. ADAMS, Washington, referred to the difficulties of diagnosis in these cases and said that he could not recall a case of a typical empyema in a negro which accorded with Dr. Hand's experience.

DR. THOMAS MORGAN ROTCH, Boston, said that patients with non-tuberculous empyemas almost invariably recover, and that he still resected the rib in these operations and did not find that it caused much deformity.

Case of Atresia of the Duodenum

DR. R. G. FREEMAN, New York, reviewed the literature of the subject of which with a case reported there are 63 cases. On the second day the child voided no urine, vomited and became jaundiced; on the fifth day there was frequent vomiting. On the sixth day, when first seen, there was no peristalsis and no bowel movements. On the ninth day vomiting became worse and on the tenth day the child died. Postmortem showed constriction two-thirds of the distance toward the pylorus. The stenosis of the duodenum was complete.

DISCUSSION

DR. THOMAS MORGAN ROTCH, Boston, referred to the comparative rarity of these cases, but said that cases of young babies with symptoms of stricture were not so infrequent. He believed in operative measures very strongly once the diagnosis had been made.

A Case of So-Called Congenital Malaria

DR. FRANK S. MEARA, New York: The paper deals with a case of so-called congenital malaria and the question is discussed of whether there is such a thing as congenital malaria. The child was born in a locality where there were no mosquitoes. On the tenth day the child became sick and was brought in with a diagnosis of inguinal hernia. The spleen was filling one-half the abdominal cavity and the blood showed a number of parasites. It would seem that the child was infected or inoculated by the maternal blood in the parturition. It is fair to assume the possibility of separation of the placental membranes and inoculation. I thought this case represented such an inoculation.

(*To be continued*)

NEW HAMPSHIRE MEDICAL ASSOCIATION

Annual Meeting held at Concord, May 12-14, 1909

(Concluded from page 2015, Vol. LII)

Empyema

DR. E. E. LAKE, Hampstead, said that all authors agree on drainage and considers that his treatment will get the patient out quicker that any other method. He cited several cases in which he had made an incision between the seventh and eighth ribs and drawn off the pus, always with good results.

The Hygienic and Physical Exercise Treatment of Cardiac and Neurasthenic Cases

DR. JOHN W. BOWLER, Hanover: I have been successful in cases of fatty heart, arrhythmia and gastric disturbances. Physical or external therapeutic treatment benefits all these patients and permanently cures most of them. Massage is the most generally applicable feature, as it can be given to patients who are too weak to begin with the exercises. We rarely find laborers or those whose occupation keeps them in the open air, necessitating some physical exertion, affected with neurasthenia.

DISCUSSION

DR. JOHN C. O'CONNOR, Manchester, does not believe in telling a nervous patient not to worry, as he will only go out and worry the more; the physician should endeavor to have the patient do something that will take his mind from himself.

Responsibility of the General Practitioner and the Specialist in the Prevention of Deafness

DR. FRANCIS P. EMERSON, Boston, in speaking of the prevention of deafness and the progress of otology during the past few years particularly, stated that it had been largely along the line of prevention. It was found that in the progress of catarrhal deafness the relation of the nasopharynx to the middle ear was one of extreme importance. He exhibited a plate showing the condition after an operation for the removal of the middle turbinate. One ear might be impaired without the knowledge of the patient. A person whose hearing was affected was debarred from gaining a livelihood in many ways. It was common observation that a large percentage of deafness in adults dated back to childhood, therefore children should be looked after. The hearing function of adults was also often seriously impaired by the action of certain drugs. Syphilis and tuberculosis were accompanied by marked destruction of the membrana tympani.

DISCUSSION

DR. L. W. FLANDERS, Dover, considered it a difficult matter to get the cooperation of the parents in treating these diseases. He believed that the time was coming when parents would be compelled to attend to the ears of their children in the same manner in which they were now obliged to have them vaccinated. There were children in any city schoolroom with running ears accompanied by a disagreeable odor which was an abomination. These children also became confirmed mouth breathers.

DR. GEORGE A. WEAVER, Warren, thought that physicians did not follow up acute febrile diseases thoroughly enough and long enough. The patients were not nourished properly with tonics which would indirectly reach these parts; and the same lack of supervision applied to the eliminations from the intestines and kidneys. Dr. Weaver also thought one of the causes of deafness might be from diving and swimming under water during the summer months.

Recent Advances in Neurology

DR. ALBERT E. BROWRIGG, Nashua, emphasized the importance of nervous diseases, previously somewhat neglected, but now making rapid progress and attracting the attention of the profession. Diagnosis had become more exact and treatment more effective. Particularly in regard to insanity, institutions had become hospitals for study and treatment instead of asylums, and about 25 per cent. of the patients were discharged as recovered. Insanity and mental diseases were not interchangeable terms; insanity must be regarded as a legal state and not a definite disease. The various cults professing to cure functional nervous disease were wayward exploitations of the incomplete scientific findings of physicians engaged in mental research. This method was apt to discredit genuine scientific work; but it was attracting the popular mind to psychotherapy and away from the surgical field which had been holding its attention. In this state of the popular pulse it was well to review our knowledge of mental diseases, which was best done by running over a good classification of the psychoses, so as to brighten the mental picture of these diseases. Dr. Browrigg gave a rearranged Kraepelius classification as follows:

PSYCHOSES

1. Toxemias.—Curable psychoses depending on external toxins: Drug Psychoses; Infection; Thyrogenous.
2. Exhaustion Psychoses.—Neurasthenia, curable by good nutrition even after from five to fifteen years duration.
3. Manic-Depressive.—Frequently hereditary, often curable.
4. Dementing.—Associated with organic disease of nerve centers, usually progressive; Dementia præcox, the patient may recover but is always left somewhat damaged and recurrence is probable; involution psychoses; organic brain lesions; paresis sclerosis; apoplexy, etc.
5. Paranoia.
6. Constitutional Instability.—Hysteria; epilepsy; fears; impulse.
7. Defectives.—Imbeciles; idiots.

DISCUSSION

DR. T D. LUCE, Portsmouth, had always considered the classification of nervous diseases into the general term of visional and organic a rather unfortunate one, a little too broad, and that in so-called visional disease a great many times there really existed some organic cause which was not recognized. He thought that probably physicians did not take the interest they should in this matter unless they specialized along this line. Probably most of the members of the society were capable of diagnosing and curing cases of appendicitis, but very few could intelligently treat and take the interest which they should in nervous diseases.

Tuberculous Hip-Joint Disease

DR. N. W. MCMURPHY, Gilmanton: Although hip disease may occur late in life, it is essentially a disease of childhood, usually attacking children between the ages of 2 and 14. The reason for this is the frequency of tuberculosis in childhood, the active growth and immature nature of the joint constituents, the greater liability of children to fall,

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and the greater activity of youth, which favors the development of disease from slight injury. Tuberculous hip disease is seldom associated with pulmonary tuberculosis; indeed, it has been claimed by many authors that there is a direct antagonism between external and internal tuberculosis. The symptoms in the early stages are more or less obscure. The first stage is usually a slight limp; muscular rigidity occurs in the second stage, and often abscess. The third stage is characterized by shortening or dislocation of the joint. The natural tendency is toward recovery, with more or less deformity. One of the most important things in the treatment is to place the joint in a position of perfect rest. The traction splint is known as the American method; the traction brace is also used. The main obstacle to the cure of an inflamed joint is the friction and pressure of its surfaces. The German method is by means of the plaster bandage without crutches or high shoe. The short spica bandage is used as a routine treatment of hip disease.

Legal Liability of Physicians to Patients

MR. MARSHALL D. COBLEIGH, Lebanon, said in part: The general demand for a higher degree of preparatory work and training on the part of those who are to have the right to practice medicine than formerly obtained, may partially account for the recent verdicts that have been returned against physicians in this state for alleged errors. The law requires that you use "due care" in the treatment of your patient. Just what acts will come within the definition of "due care" is often difficult of determination. A fairly accurate statement of the rule is laid down by a writer in the following language: "Due care is a degree of care corresponding to the danger involved . . . the term is relative, and its application depends on the situation of the party, and the degree of care and vigilance which the circumstances reasonably impose. Where the danger is great, a high degree of care is necessary and failure to observe it is want of ordinary care." In law "due care," "reasonable care" and "ordinary care" are convertible terms. Negligence is the failure to do what an ordinarily prudent person would have done under the circumstances, or the doing of that which an ordinarily prudent person would not have done, in either case causing unintentional mischief to a third person. To charge a physician or surgeon with damages, on the ground of the unskillful treatment of his patient's case, it is never enough to show that he has not treated his patient in that mode, nor used those measures, which, in the opinion of others, even medical men, the case required; because such evidence tends to prove errors of judgment, for which the defendant is not responsible, as much as the want of reasonable care and skill, for which he may be responsible. Negligence is usually a matter of fact, not of law, yet there may be some cases in which it is a mixed question of law and fact. The law is always a question for the court, while the facts are found by the jury. In the absence of an express contract, a physician does not incur liability for failure to accomplish what the patient desires, unless the failure is due to negligence on the part of the physician. Another question may often arise, as to what extent a physician is justified in going, in performing an operation other and different from the one on which he started out, while the subject is under the influence of an anesthetic. In Pratt v. Davis, 7 L. R. A., 609, the court holds that an express or implied consent is necessary either by the person or by some one legally authorized to act for him. When a person receives a serious injury and the attending physician starts in on an operation with the knowledge and consent of the patient, and he finds that, in order to save life or in an attempt to save it, he must go farther, and that at the time, there are cases in which the courts have held that an implied consent is given to the physician to do what seems to be reasonable and necessary for the patient. If a person has been injured to the extent of rendering him unconscious, and his injuries were of such a nature as to require a prompt surgical operation, a physician called to attend him would be justified in applying such medical or surgical treatment as might reasonably be necessary for the preservation of his life and limb, and consent on the part of the injured one would be implied. The present tendency of the decisions is to extend and grant every reasonable right of latitude to a physician. The practical question that a physician is interested in is how to protect himself from law suits and vexatious litigation. In this connection I would suggest that, in cases of doubt, he have one or more physicians as witnesses while performing an operation, or even administering an anesthetic, if there is any danger of trouble therefrom. The rule for determining damages may be stated generally as follows: A party may recover damages for all actual pecuniary loss, damage or personal injury that may result from the wrongful act or omission of another, and which is the natural and probable result of the act or omission complained of, including a reasonable compensation for mental and physical suffering caused by the act or omission in question, and in some cases in which the act was wilful, then exemplary damages may be awarded, or damages which may be added by way of punishment for the malice displayed by the defendant.

Mr. Cobleigh closed his paper with the simple suggestion: "Usually your own good judgment, carefully and honestly exercised, coupled with your fidelity to the needs of your patient, will, in the future as in the past, both prove a safe protection and prohibit such professional errors as will be cause for complaint on the part of those whom you may be called on to treat."

DISCUSSION

DR. E. O. CROSSMAN, Lisbon, said that he had always felt personally that there was little danger from malpractice cases if he did his best and kept away from surety companies. His feeling was that a surety company was a corporation and was pretty sure to invite trouble. He thought that there seemed to be a feverish public mental condition that was hard to understand, a condition of unrest, a battle on all sides for supremacy, regardless of justice and righteousness. Dr. Crossman said that, as there is no great injury about a broken bone, that the family physician should be called in or some other physician in the neighborhood. It helped to strengthen things if the physician insisted on plenty of counsel before taking any positive step. It was hazardous business taking charge of broken bones, and the more we could divide the responsibility, the better.

JUDGE JAMES W. REMICK, Concord: Just now our courts are abounding in malpractice proceedings against members of your profession, and verdicts are following each other in swift and alarming succession against the most distinguished of your number, and for amounts on account of alleged imperfect repair in excess of the damages awarded for the entire injury against corporations in no more serious cases. Some of the convictions relate to treatment afforded without reward or hope of reward by way of charitable relief in charitable institutions, and in part on the alleged ground that the appliances of the institution were defective. The institution itself because of its charitable character is by the policy of law exempt from liability to its patients, but nevertheless the physician who from the same motives of charity donates his services to the hospital, is called on to pay large damages on account of results. The Supreme Court of this state, in setting aside a verdict in a leading malpractice case against one of your profession on account of treatment of a fracture, said: "The medical practitioner is necessarily surrounded by doubts and uncertainties and unavoidably exposed to errors and mistakes which may well furnish a satisfactory explanation of unfavorable results."

Hydrotherapy

DR. JOHN B. MACDONALD, Concord: The oldest of all remedial measures has been until a late day the most neglected and often the most derided by the medical profession. As a profession, we are too apt to walk rather contentedly in a little lighted circle of prejudices and have to be reminded of what lies without us. Water, properly applied, is a most powerful therapeutic agent, and the results from its judicious usage are often little short of marvelous. In the wards of the New Hampshire State Hospital it has been demonstrated over and over again that a short cold bath with friction lowers the pulse rate markedly, improving its tone and increasing its tension. Cold applications excite and

warm applications diminish irritability. No one who has not seen an excited acute maniac sleeping quietly for six or seven hours after a bath of from three to five minutes' duration, administered in the proper manner, can have any conception of the wondrous change effected. Sleep has been produced by this means when large doses of veronal, hyoscin and dormiol have been ineffective. Cold applications to fulfill their function should be of short duration and always accompanied by friction.

DISCUSSION

DR. C. R. WALKER, Concord, spoke of a case of sepsis in which the patient was made comfortable, restlessness diminished and quiet produced, by frequent reconnection with the double injection tube, thus irrigating the lower bowel with gallons of water.

DR. F. N. ROGERS, Manchester, mentioned a case of acute alcoholism which was relieved in one night by the use of hot baths.

DR. H. W. N. BENNETT, Manchester, reported the case of a young boy with a tuberculous leg who was not expected to live. The leg was swollen three times its natural size and there were many places through which the pus exuded. The boy was placed in a bath tub and immersed to the neck, staying there for a day and a night. In about eight days a hip joint amputation was performed and the boy recovered.

DR. F. L. GERALD spoke of a young man with typhoid, whose spine was packed with ice, and it was three or four years before he recovered. So it seems to him that brains and common sense should back up this treatment with water as well as medicine.

Medicolegal

Burden of Proof and Other Requirements in Abortion Cases

The Supreme Court of Colorado says, in Fitch vs. People, where it affirms a conviction of procuring an abortion, that the law of that state has wisely provided that but one fact can justify the procuring of, or attempting to procure, a miscarriage; that is, that the act is done by or under the advice of a physician or surgeon, with intent to save the life of the woman, or to prevent serious and permanent bodily injury. It is not incumbent on the state to prove beyond a reasonable doubt, or at all, that "the use of the instrument was not necessary to save life," that it was not used "to prevent serious and permanent bodily injury," or "was not done under the advice of a physician or surgeon." The exceptions contained in the statute are matters of defense which must be made to appear by the defendant from the evidence.

The crime is complete when the instrument is used with the intention of procuring a miscarriage. Whether miscarriage does or does not follow is immaterial. An instruction offered in this case appeared to have been drawn on the theory that the woman might have miscarried by reason of her own acts in the taking of drugs or the use of an instrument, and that proof in support of such a theory would warrant the acquittal of the defendants; but such is not the law.

Again, the court says that the defendant offered no justification for having used an instrument with the intention of procuring a miscarriage, and no instruction on that theory should have been given. She denied that she had used any instrument that could have produced a miscarriage. She testified that she used only a speculum, and that that instrument was used only for the purpose of making an examination, and that its use could not have produced a miscarriage. But the only question presented to the jury by her plea of not guilty and all the testimony in the case was, Did she, or did she not, use an instrument with the intention of procuring a miscarriage? and not, Did she, or did she not, use an instrument with the intention of procuring a miscarriage, under the advice of a physician, to save life, or to prevent serious or permanent bodily injury? Therefore, even though the instructions apparently cast on her the burden of proving facts in justification, there was no error, because under the testimony no such question should have been submitted to the jury. The burden of proving the facts necessary to conviction devolves on the state; and if, from all the evidence, a reasonable doubt exists in the minds of the jurors as to the guilt of the accused, he must be acquitted. Yet, in a case where justification is not relied on as a defense, the defendant is not harmed by an instruction which casts on him the burden of proving facts in justification.

Admissible Expert and Other Evidence and Instructions in Malpractice Case Affected by Tubercular Conditions

The Court of Appeals of Maryland says, in Miller vs. Leib, an action brought by the latter-named party to recover for alleged negligence in treating her after she had fallen and fractured a femur while walking across her bedroom, that litigants in an action of law are entitled to the judgment of the jury on all of the facts of the case. Therefore expert testimony on hypothetical questions, which substitutes inferences for facts, ought always to be received with caution. It is of the highest importance in admitting such evidence that care be taken to see that the hypothetical question put to the expert is not only based on facts already in evidence, but that it is so framed as to fairly represent those facts, and not give the situation a false color by the method of their statement. In some jurisdictions such questions are required to cover all undisputed facts material to the subject involved, but it has been held by this court in several cases that it is not always necessary in framing a hypothetical question to be put to a medical expert to refer to all of the evidence on the subject. It has, however, since then been held by this court that it is faulty in framing a hypothetical question for a medical expert to give a wrong coloring to facts by isolating a particular fact and withholding other facts which bear directly on the ones so segregated.

In this case the hypothetical questions, by means of which the plaintiff's counsel elicited the expert testimony of a physician over the defendant's objection, were predicated on the assumption that at the time of the accident the plaintiff was over 61 years old and slight in build, but were silent as to her general health at the time, and especially failed to mention or take into consideration any tubercular trouble on her part. For example one question was: "Suppose a lady, 61 years of age, rather slight, falls and sustains a fracture of the neck of the femur; suppose it were an impacted fracture, what would be the treatment which would be required on the part of a reasonably skillful physician using reasonable care?" Another question was: "How long usually would reasonable care require that the Hamilton and Long (splint) or the plaster cast and the mild extension should remain before the physician took it off to examine the condition of the fracture?" Still another question was: "Suppose a lady 61 years of age fell and sustained an intracapsular fracture of the neck of the femur, and called in her regular physician, how often would reasonable care require that he should see his patient after his first visit?" The court thinks that the defendant's exceptions to these and all similarly defective questions should have been sustained.

Another exception raised the question of the propriety of permitting a witness to testify that the defendant told her over the telephone at 1 o'clock of the day of the accident that he would come out to see the plaintiff, though the witness had testified that she did not recognize the voice speaking over the phone to her as that of the defendant, as she did not then know him. But as the communication put in evidence in this case came over the telephone in response to a request sent to the defendant's office, and purported to be from him, and was not strictly personal or medical in its nature, but consisted merely of an alleged statement on the physician's part that he was unable to respond at once to a request to visit the patient, accompanied with a promise to do so after he had closed his office, the court thinks it was properly permitted to go to the jury to be considered by them in connection with his testimony that he got there as soon as he could after receiving the telephone request to come, which, according to his account, reached him about 6 or 7 o'clock in the evening.

The plaintiff requested that the jury be instructed that if they found that she sustained a fracture of her femur, and

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that the defendant as a physician and surgeon undertook to treat her and did not exercise reasonable care and skill in ascertaining from what she was suffering, or in his treatment of her case, and that, by reason of such failure on his part, she suffered pain and lost the use of her limb, she was entitled to a verdict in her favor. No reference was made to the evidence in the case tending to show a tuberculous condition of the plaintiff at and after the time of the accident, and the effect of such a condition on the propriety of the treatment of the plaintiff's case adopted by the defendant. The instruction was given in connection with one by which, as modified by the judge, the jury were directed not to allow any damages on account of the treatment given to her by the defendant for tuberculosis, nor for such delay in his treatment of her hip as resulted from his diagnosis of tuberculosis in her. The court finds no reversible error in the granting of the two instructions in connection, thus limiting the first by the proviso contained in the other.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

June 19

1 Problems Connected with Tuberculosis. H. G. Piffard, New York.
2 *Presence of the Tubercle Bacillus in the Circulating Blood. R. C. Rosenberger, Philadelphia.
3 *Indications for Removal of the Faucial Tonsil and Suggestions as to Its Technic. G. Hudson-Makuen, Philadelphia.
4 *Human and Bovine Tubercle Bacilli. G. B. Sweeny, Pittsburg, Pa.
5 *Expeditious Method for Submucous Resection of the Triangular Cartilage of the Nose. W. P. Porcher, Charleston, S. C.
6 *Irrigation Treatment of Puerperal Sepsis. H. Weil, New York.
7 Practical Lessons from a Study of 200 Cases of Weakened Feet. J. M. Berry, Troy.
8 Malignant Endocarditis without Fever. E. E. Cornwall, Brooklyn.

2. **Tubercle Bacillus in Blood.**—In 300 cases of tuberculosis, Rosenberger is more than ever convinced that tuberculosis is a bacteriemia, and that the tubercle bacillus can be demonstrated in the blood in every case in which there is an active tuberculous process. He also believes that the bacillus is present in the blood in a certain percentage of apparently healthy individuals at some period and perhaps may be there for years in an attenuated form. When the general resistance is lowered or the resistance in some viscus or anatomic structure is lessened, the bacillus becomes pathogenic, at once lodges at this point, and brings about the disease, tuberculosis. Rosenberger also believes that the bacillus is transmitted from mother to child through the placenta, as the examination of a large number of specimens of blood from umbilical cords show these same acid-fast organisms as obtained from the mother's blood.

3. A similar article by this author appears in THE JOURNAL, June 19, 1909, p. 1988.

4. **Human and Bovine Tubercle Bacilli.**—During the past year one hundred and fifty additional cases successfully treated with antituberculous lymph by Sweeney and other physicians in various parts of the United States have been carefully studied. From the beginning of his work in immunizing cattle, Sweeney has made close observations on the relative merits of human and bovine tubercle bacilli as immunizing agents. To render these observations more reliable he has during the past five years kept the immunized cattle in two district herds; those immunized through the use of bovine tubercle bacilli being cared for on a farm remote from the cattle which had been treated with human tubercle bacilli. The lymph derived from the first herd was designated AT. L. No. 1, that from the second AT. L. No. 2. That there was a marked difference between the action of the two lymphs when administered to tuberculous patients was at once apparent. Even more; in most cases where AT. L. No. 1 improved the patient's condition a change to AT. L. No. 2 would be followed by untoward symptoms. In exceptional cases a change from one lymph to the other, at definite intervals, would be followed by improvement for a time, when it was found advantageous to return to the first. From the evidence which has been collected on the subject, Sweeney believes that we are warranted in reaching the following conclusions:

1. Human and bovine tubercle bacilli are distinctly different in most of their characteristics.
2. The human subject may become the host for either form of tuberculous infection, human or bovine. Likewise the bovine may be inoculated in the same way and under like conditions.
3. Tuberculous infection of the respiratory tract will usually be found to be due to bacilli of the human type, while those of the bones, joints, and lymphatics are likely to be due to bacilli of the bovine type.

From clinical study of patients treated during the past five years Sweeney concludes that an antitoxic vaccine or lymph may be derived from the bovine which has been previously immunized through the administration of attenuated doses of tubercle bacilli. Also that this immunity may be accomplished through the use of either human or bovine tubercle bacilli in the emulsion which is used for immunizing purposes.

5. **Submucous Resection of Triangular Cartilage of Nose.**—Porcher describes his method in connection with a case report, as follows: With a rather long Curtis electric trephine two large cones of cartilage were drilled away, the trephine passing through the mucous membrane in the rear. The projecting ends of the cartilage having been removed the septum resumed its erect position. The mucous membrane was allowed to fall back into position, and a compress of cotton was used to hold it so until union took place, which was by first intention. An excellent feature of this operation is said to be that perforation rarely occurs. Unless the angle of deflection of the septum is extremely acute, it is almost impossible to produce a perforation. In a straight septum the trephine would have to be held at right angles to the partition to penetrate through it, and therefore this accident would only be likely to happen in proportion to the acuteness of the angle or the amount of deflection present.

6. **Irrigation Treatment of Puerperal Sepsis.**—The treatment employed by Weil consists of intrauterine irrigations given with sufficient frequency to keep the uterine cavity empty of all lochia. This would ordinarily involve considerable disturbance and pain to the patient, besides necessitating the almost constant presence of the attending physician. To avoid this he employs a technic by which the irrigations may safely be entrusted to any intelligent attendant; they are painless, and do not disturb the patient any more than is necessary to put her on and off the bed pan. With the patient in the dorsal position on a bed or table, he inserts two soft rubber tubes into the uterus, one well up to the fundus, the other beyond the internal os. The tubes are held in place by a light vaginal pack. Both tubes project a few inches beyond the vulva. To irrigate he attaches a fountain syringe to the longer tube, the other tube merely providing for a return flow. In this manner the irrigations are readily given on a bed pan or Kelly pad, and no particular skill is required. This treatment involves much work both day and night and is not adapted to the milder infections, being essentially an heroic procedure, it finds its use only in serious cases.

Boston Medical and Surgical Journal

June 10

9 *Comparison of the Guaiac and Benzidin Tests for Invisible Hemorrhage in Diseases of the Digestive Organs. F. W. White, Boston.
10 *Relation of the Spleen to Resistance Against Infection. J. C. Hubbard, Boston.
11 Medical Inspection of Schools in Boston; Present Limitations and Future Possibilities. W. P. Coues, Boston.

9. **Comparison of the Guaiac and Benzidin Tests for Invisible Hemorrhage.**—Only those cases are included in White's report in which the the diagnosis was practically certain from long clinical observation, or as the result of operation or autopsy. Two or three were excluded because of reasonable doubt about the use of a meat and fish-free diet. The Weber guaiac test with hydrogen peroxid was used, and the Schlesinger and Holst's benzidin test without shaking the benzidin peroxid mixture after adding the material to be examined. Twenty examinations of feces from healthy persons eating meat or fish with benzidin. Thirty-nine examinations of feces of 15 healthy once or twice a day, gave 4 positive results with guaiac and 20

persons on a diet free from meat, fish or their juices for three days gave an invariably negative result with both benzidin and guaiac tests. Ten feces from two cases of esophageal neurosis, spasm of the cardia, gave only negative results. Three feces from one case of cancer of the esophagus gave only positive results.

The stomach cases are divided into three classes: Those in which examination of the feces showed no bleeding, temporary bleeding or constant bleeding.

No Bleeding.—In this class are 62 cases with invariably negative feces when the proper precautions of the test were observed. These consist of functional diseases of the stomach, such as hyperesthesia, hyperacidity, achylia and other neuroses, chronic gastric catarrh and gastroptosis. Seventy-eight examinations of gastric contents in these cases gave 13 positive results with benzidin and 8 positive with guaiac. These results are undoubtedly due to minute artificial hemorrhage from the use of the stomach tube and show the small value of a positive result in gastric contents in comparison with the same in feces. *Temporary Bleeding.*—In this class are 4 cases of acute gastric ulcer, 6 cases of chronic or recurrent gastric ulcer, and 2 cases of chronic duodenal ulcer. Sixteen examinations of the feces were made in the 4 cases of acute ulcer with 7 positive and 9 negative results with each test. The feces usually become negative for blood in about ten days after hospital treatment was begun in cases of acute gastric ulcer with hematemesis. Twenty-five examinations of feces in 8 cases of chronic or recurrent peptic ulcer gave 15 positive and 10 negative results with benzidin and 12 positive and 13 negative results with guaiac. Here the somewhat greater delicacy of the benzidin test was distinctly useful in diagnosis. In one case in which chronic gastric ulcer was suspected (and proved later at operation) several positive results were obtained in feces and stomach contents with the benzidin test, while only negative results were found with the guaiac. In 5 cases of benign pyloric stenosis, 10 gastric contents were examined, and 3 positive and 7 negative results were obtained with each test. The positive results were due to meat or fish remaining in the stomach from previous meals. *Constant Bleeding.*—In this class there is only cancer to consider among chronic affections. In 6 cases of cancer of the stomach, 14 feces and 13 stomach contents were examined and all found positive with both tests. Two of these cases were fairly advanced with palpable tumor, 4 were doubtful, latent cases in which the constant presence of occult blood was very valuable in diagnosis. Positive results probably are obtained as soon as ulceration occurs, which is usually early in gastrointestinal cancer. In 5 cases consisting of neuroses, chronic catarrh, adhesions, diverticulitis, all feces, 10 in number, were negative with both tests. In 2 cases of ulcerative colitis, 2 stools were positive, and 2 negative with each test. In 1 case of cancer of the jejunum, 20 inches from the pylorus, all 3 stools examined were positive with both tests. Curiously enough, in cancer of the bowel in general, positive results are less constant and frequent than in gastric cancer, and a negative test has less value, therefore, in ruling it out. In 8 cases comprising gallstones, syphilis and cyst, all stools examined were negative with both tests. In 1 case of cirrhosis, 2 stools were positive and 1 negative with both tests. Positive results in cirrhosis have little or no diagnostic value and may be misleading.

10. **Relation of Spleen to Resistance Against Infection.**—Many of the books on pathology and physiology state in a few words that one of the functions of the spleen is to aid in withstanding infection. No proofs, however, of this are cited. Some authors, again, make no mention of this function. To determine, if possible, the truth of this statement, the following experiments were undertaken by Hubbard. The plan of the experiment was as follows: A normal guinea pig was splenectomized under ether. When the animal had recovered from the operation, after an interval of several days it was given an injection of staphylococcus pyogenes aureus. At the same time a control was injected. The attempt was made to regulate the dose so that it would not be large enough to kill a normal pig. A record was kept at first of the weights and temperatures, but as neither of them appeared to vary in any definite manner, it was soon given up. When an animal died (either the experimental animal or a control) it was autopsied, and in addition to the macroscopic appearances, cultures were taken from the liver and heart's blood in such a manner as to avoid outside infection. The other animal of the pair was usually killed at the same time and autopsied in a similar manner. The two splenectomized pigs died of general infection, the controls surviving. One splenectomized pig died of general infection, there being no control. A splenectomized pig died of a local infection, not at the point of inoculation, some time after its control died of a general infection. A control died of a general infection, while the splenectomized pig lived until killed. Both the splenectomized pig and the control lived until killed. From the perusal of these few experiments it appears that there is no marked difference in the ability of splenectomized and normal guinea-pigs to withstand infection artificially produced by the *Staphylococcus pyogenes aureus.*

Medical Record, New York

June 19

12 *Conquest of the Tropics for the White Race. W. C. Gorgas, Ancon, Canal Zone.
13 *Caisson Disease. M. A. Starr, New York.
14 Value of Cystoscopy in Gynecology. A. Stein, New York.
15 *Amount of Pepsin in Various Disorders of the Stomach. M. Einnorn and G. L. La Porte, New York.
16 Calculus in the Lower Segment of the Ureter in the Female. A. E. Isaacs, New York.
17 Etiology of Carcinoma. A. K. Sallom, Kousba, Mt. Lebanon, Syria.

12. Published in The Journal, A. M. A., June 19.

13. **Caisson Disease.**—An analysis by Starr of about 300 cases which have occurred in recent years shows the following list of symptoms occurring in the order of frequency: Myalgia, or severe pain in the muscles, and especially in the muscles of the back, but also in the muscles of the extremities, seems to be a uniform accompaniment of the disease. It occurred in 105 of the 310 cases analyzed. The second most frequent symptom is an affection of the ears, producing symptoms comparable to Ménière's disease; vertigo, vomiting, intense prostration, tinnitus aurium, and deafness. These symptoms occurred in 68 cases.

Pain in the joints, classed together as arthralgias, occurred in 60 cases, in many of them being attended also by myalgia. It seems probable that in these cases there has been a sudden effusion of fluid into the joints, stretching the capsules of the joints without any acute inflammatory condition, and in proof of this the frequency of swelling without heat or redness can be cited. In 26 cases acute paraplegia developed. Monoplegia was observed in 17 cases, cerebral in type rather than spinal, and undoubtedly due to localized areas of softening, or to malnutrition in the cortex produced by bubbles of air in the veins of the brain. Symptoms of intense vertigo of cerebral nature, undoubtedly due to emboli in the cerebellum, were noted in 14 cases. These resembled in many respects the symptoms of Ménière's disease, already mentioned, but were followed by paralysis of some of the cranial nerves, indicating that the origin of the symptoms was not in the ear. The seventh most frequent set of symptoms were classed together as asphyxia, the patients showing all the signs of faintness with irregular heart action; 13 patients suffered from this symptom.

Aphasia has been observed in a number of the cases. Recoveries have also been recorded in many cases in which the symptoms were largely cerebral. Thus in cases presenting the phenomena of acute transitory mania, in other cases presenting symptoms of hemiplegia, in other cases presenting the symptoms of various types of aphasia, temporary deafness, and temporary blindness, as well as in those very numerous cases in which peripheral disturbances of the auditory nerve had been produced by lesions of the inner or middle ear, recoveries have been recorded. It is evident, therefore, that in the cases of apoplexy or of paraplegia occurring in connection with caisson disease, the prognosis is very different from that in cases occurring under other circumstances. It is well known that the important element in the treatment, is to replace the individual as soon as possible after the onset of the symptoms, in a chamber containing compressed air and to keep him under two or three atmospheric pressures for several hours reducing this pressure very gradually. If this can not be done, the most successful treatment appears to be to stimulate the

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circulation by strychnin and to increase the arterial tension by ergot.

15. **Pepsin in Various Stomach Lesions.**—Einhorn and La Porte examined 110 cases. Among these were 48 cases of hyperchlorhydria, 4 cases of subacidity; 21 cases of absence of free hydrochloric acid, and 37 cases of normal acidity. They found that there is no strict relation between the amount of pepsin and the acidity in the group of hyperchlorhydria and normal acidity. In fifteen cases of achylia the ricin deposit was cleared up entirely only once, and in five cases of cancer of the stomach without free hydrochloric acid it also occurred only once. In one case of achylia the amount of pepsin was fairly considerable, as the precipitate disappeared in seven minutes. Among the cases of hyperacidity only seven showed a correspondingly increased amount of pepsin. In all other cases of hyperacidity the amount of pepsin did not exceed the normal limits.

Lancet-Clinic, Cincinnati

June 13

18 Historical Review of the Development of the Cataract Operation. L. Stricker, Cincinnati.
19 The Smith Operation for Cataract. D. W. Greene, Dayton, O.
20 The Diagnostic Significance of Liver Palpation. H. W. Bettmann, Cincinnati.

Northwestern Lancet, Minneapolis

May 15

21 *Evolution of the Superman. V. C. Vaughan, Ann Arbor, Mich.

21. **Evolution of the Superman.**—Vaughan traces the influence of disease, and particularly of malaria and epidemics, on the various races, and concludes that medical investigation into the nature and causation of disease must be encouraged. Our medical schools must be centers, not only for the dissemination of knowledge, but for its acquisition. Original research along the lines of preventive medicine, bacteriology, and pathology must be enlarged and more generously supported, and the attitude of the medical profession toward the public and that of the public toward the profession must be radically changed. Up to the present the medical student has been trained largely, if not wholly, with reference to the good of the individual patient. This training must be modified, and the coming medical man must be developed largely with a view to his relation to the public. His principal function must be to prevent rather than to cure disease. The physician's duties are to become more and more largely official, in the sense that his services are to be rendered to the community, and not exclusively to the individual. Vaughan imagines that the time will come when people will go to the physician to find out whether they are really well or not, and not wait until they know they are ill. They will go for examination and advice, rather than for treatment. Ultimately, every one will be examined twice or oftener each year, and no two consecutive examinations will be made by the same physician. A record will be kept of each examination, and when the individual ultimately dies, a careful autopsy will be made on every person. At first these things will be voluntarily done by intelligent people, and later, others seeing its advantages, will adopt the method. Finally, it will be compulsory with all, and will result in great good to the whole. The value of a custom of this kind in case of many of the infectious diseases, both to the individual and to the public, is evident. Take tuberculosis as an illustration: The physician is now so equipped in the recognition of this disease that he can detect it in its earliest stages when it is amenable to proper treatment, which is of benefit to the patient himself, and before the victim becomes a possible source of danger to others, and this is a service to the public. By means of careful physical examination, supplemented with the ocular and cutaneous reactions, slight tuberculous changes in the body may be detected with certainty, and still most people with this disease wait until cure is impossible. If people were frequently examined we should not be cursed with the venereal diseases as we are. The young man who goes wrong would be sent to the hospital or other place of observation, and detained until he ceased to be a source of contagion. Mental diseases also need this kind of treatment. The man or woman who is addicted to alcoholism would be placed where he or she could not gratify a depraved appetite and continue in the bad way. If such a system should be adopted life would be prolonged, disease would decrease, our insane asylums would not be so crowded, and the race would be far on the way to the development of the superman.

Journal of Ophthalmology and Oto-Laryngology, Chicago

May

22 *Surgical Treatment of Optic Neuritis. W. O. Nance, Chicago.
23 Four Cases of Hysterical Blepharospasm. N. Remmen, Chicago.
24 Two Cases of Nasal Calculus. S. A. Freidberg, Chicago.

22. **Optic Neuritis.**—From a study of the literature, Nance comes to the following conclusions in relation to operative measures for the relief of optic neuritis:

1. Operative procedures for the relief of papilledema in suitable cases offer by far a better prognosis than treatment by drugs.
2. Free opening of the skull and dura, in cases in which the tumor can not be localized, is the operation of choice.
3. The operation to be of benefit must be performed early before secondary and permanent changes occur in the nerve and other ocular structures. The time when vision begins to fall may be tentatively adopted as the time to operate.
4. Operative measures involving the opening of the skull and dura in papilledema dependent on anemia, toxemia, albuminuria, sinus disease, etc., are contraindicated; hence the necessity of thorough examination of the blood and urine, and an investigation of neighboring cavities, before advising such radical procedures.
5. In cases of tumors implicating the basal tracts, decompression can not prevent loss of sight.

Detroit Medical Journal

May

25 Treatment of Diabetes Mellitus. L. A. Levison, Toledo, Ohio.
26 *Clinical Experiences in Tuberculosis of the Bladder. W. Karo, Berlin, Germany.

26. Abstracted in THE JOURNAL, Oct. 3, 1908, p. 1538, and published in *Virginia Medical Semi-Monthly*, Oct. 9, 1908, *Old Dominion Jour. Med. and Surgery*, October, 1908, and *Medical Fortnightly*, Oct. 9, 1908.

Annals of Otology, Rhinology and Laryngology, St. Louis

March

27 *Pathology of Acute Tonsillitis. G. R. Wood, Philadelphia.
28 *Cases Illustrating the Results of the so-called Heath Operation. S. M. Smith, Philadelphia.
29 *Anatomy, Pathology and Surgical Treatment of the Faucial Tonsil. J. C. Beck, Chicago.
30 Experiences with the Killian Frontal-Sinus Operation. Dr. von Eicken, Freiburg i. Breisgau, Germany.
31 Experiences in the Endonasal Radical Operation on the Sphenoid Cavity and Posterior Ethmoid Labyrinth. M. Hajek, Vienna.
32 Mastoid Cases which Came under my Observation during the Past Year. F. Allport, Chicago.
33 Vincent's Angina. C. W. Richardson, Washington, D. C.
34 Bronchoscopy and Esophagoscopy—Technic, Utility and Dangers. E. F. Ingals, Chicago.
35 Indications for Radical Mastoid Operation Based on Pathologic Lesions. S. J. Kopetzky, New York.
36 Sinus Disease. C. F. Theisen, Albany, N. Y.
37 Anatomy and Diseases of the Styloid Epiphysis. J. J. Kyle, Indianapolis.
38 Double Mastoiditis Followed by Left Sigmoid Sinus and Jugular Vein Thrombosis. Operation. Recovery. J. F. Barnhill, Indianapolis.
39 Obstructed Nasal Respiration and its Relation to Dental Deformities. J. H. Allen, Portland, Me.
40 The Acoustic Function of the Ear. E. de W. Wales, Indianapolis.
41 Function of the Middle Ear Muscles, resulting in Modification of the Theory of Hearing. E. de W. Wales, Indianapolis.
42 *Experimental Nystagmus and an Application of its Principles to the Diagnosis of Lesions of the Inner Ear and Cerebellum. W. B. Chamberlin, Cleveland, Ohio.
43 *Vaccine Therapy in Otology and Rhinolaryngology. R. Levy, Denver.
44 Operation for Malignant Growths of the Tonsil. K. Vohsen, Frankfort on the Main, Germany.
45 Phonasthenia. T. S. Flatau, Berlin, Germany.

27. **Pathology of Acute Tonsillitis.**—Wood, in an article well illustrated with histologic specimens, says that from a pathologic standpoint we can recognize three types of acute tonsillitis: A proliferative form, with increase in nearly all the cellular elements of the tonsil; a lacunar form, in which the cryptal epithelium shows the most severe lesions; and a suppurative form, in which abscesses develop within the germinating follicles. These different forms are generally associated together in a given case, but any one of them may be the predominating lesion. Certainly in all cases we have a proliferation of the cellular elements, and very early in the process there is associated some diapedesis of multinuclear leucocytes through the cryptal epithelium and possibly some necrosis of the epithelial cells. If necrosis of the cells is great enough to cause a break in the epithelium, the paren-

chyma of the organ is open to attack, and the bacteria gaining access to the tonsillar tissue probably find lodgment in the follicles and there cause intrafollicular abscesses.

28. Published in the *Medical Record*, March 20, 1909.

29. **The Tonsil.**—Beck gives a macroscopic and microscopic study of a radically enucleated tonsil, for chronic lacunar disease. He discusses chronic lacunar inflammation, hyperplastic tonsils, hyperkeratosis of the tonsil, tuberculosis, luetic tonsil, actinomycosis, and the various forms of malignant disease. He advocates and describes in detail the radical enucleation operation. The article is illustrated.

42. **Experimental Nystagmus.**—Chamberlin draws the following conclusions: The semicircular canals and the cerebellum play a joint part in the perception of equilibrium. That other factors participate strongly, is shown by the return to the normal after loss of stimuli from these organs. Disturbances in the function of vestibule and cerebellum cause disturbances of equilibrium and also produce a nystagmus having certain definite characteristics.

43. **Vaccine Therapy in Otology.**—Levy's observation and experiences lead him to advise that in all obstinate cases in which conservative methods, including so-called conservative operations, have been adopted, the patients should receive the benefit of vaccine treatment. This refers to all ear cases, chronic or acute, with or without mastoid involvement, and all accessory sinus cases.

Southern California Practitioner, Los Angeles

May

46 Hospital Operative Care. R. Brown, Santa Barbara, Cal.
47 Lithemia. J. B. Cook, Los Angeles.
48 *The Increased Longevity of Life-Insurance Policy Holders. B. Foster, St. Paul, Minn.

48. Commented on editorially in THE JOURNAL, May 1, 1909, p. 1428.

Journal South Carolina Medical Association, Greenville

May

49 *Educational Plans and Methods to Improve Sanitary Conditions. S. C. Baker, Sumter.
50 Ununited Fractures. S. McGuire, Richmond, Va.
51 Peripheral Operation for Tic Douloureux. A. E. Baker, Charleston.
52 *Up-Bringing of American Children a Factor in the Comparative Rarity of Psychasthenia Among Them. T. A. Williams, Washington, D. C.

49. Abstracted in THE JOURNAL, June 5, 1909, p. 1870.

52. Published in the *Virginia Medical Semi-Monthly*, April 23, 1909.

University of Pennsylvania Medical Bulletin, Philadelphia

May

53 *Acute Pancreatitis. J. H. Musser, Philadelphia.
54 *Ulcer of the Stomach. J. H. Musser, Philadelphia.
55 *Value of Salomon Test in Diagnosis of Carcinoma of Stomach. E. H. Goodman, Philadelphia.
56 *Aortic Insufficiency Simulating Aneurism and a Review of the Various Opinions on the Cause of the Flint Murmur. G. M. Piersol, Philadelphia.
57 Cutaneous Reaction of Link in Typhoid Fever. E. H. Goodman and C. C. Sutter, Philadelphia.
58 Modern Methods of Diagnosis and Treatment of Diseases of Stomach. J. H. Musser, Philadelphia.
59 Metabolic Studies in a Case of Postoperative Tetany. J. H. Musser and E. H. Goodman, Philadelphia.
60 Carcinoma of Stomach Presenting Some Unusual Features. J. H. Musser and E. H. Goodman, Philadelphia.

53. **Acute Pancreatitis.**—Musser analyzes 9 cases that have come under his observation and which show that acute hemorrhagic pancreatitis may occur in the course of typhoid fever and cause death, and that an unfortunate association of symptoms of renal calculus and pancreatitis may occur, confusing thereby the diagnosis. The diagnosis must be based on (1) previous history; (2) acute symptoms and shock (in 8 cases); (3) inflammation behind stomach, rigidity of left rectus, epigastric pain; vomiting occurred in all cases; (4) epigastric tumor with dull tympanitic note (7 cases); (5) pain in back, especially costoiliac space on deep pressure; (6) diarrhea (7 cases; in 2 cases moderately obstinate constipation); (7) acute anemia of secondary type with leucocytosis (remarkable in 4 instances); (8) marked increase in leucocytes (8 cases), increase of polymorphonuclears where differential count was made; (9) temperature usually normal throughout, except with coincident infection; (10) dyspnea (8 cases) seems a very striking symptom; (11) pulse increases in frequency, but not to extraordinary degree in all instances; (12) no report on stools; (13) Cammidge's test positive in 2 out of 4 trials; (14) in 3 instances very marked, general board-like rigidity of abdominal wall; (15) neither age nor sex were factors in diagnosis. Out of 9 patients 5 recovered, 4 died. In 2 recovery was spontaneous, in 3 with operation.

54. **Ulcer of the Stomach.**—Musser reviews 6 cases of gastric ulcer, recently under his care, for which operation was done. From a fairly large experience he considers the diagnosis of gastric ulcer very difficult to make. The more he sees of surgery, the more he feels that we must go very slowly with regard to advising abdominal section. He feels this particularly true, unless he has the opportunity also of selecting the surgeon. Under certain circumstances the operation is extremely grave. As clinicians we should consider carefully, and while the patient is under observation a fair period of time, before coming to a conclusion as to surgical interference in ulcer of the stomach, Musser still feels that the disease is not a common one, notwithstanding the statistics of English surgeons and some surgeons in this country. There are circumstances quite abundant when medical measures can bring about relief and perhaps cure in a certain proportion of cases—namely acute ones. Finally, he repeats, the picture of gastric ulcer, especially of chronic ulcer, must be that of a non-febrile gastric disorder, attended by remissions, with symptoms of hypochlorhydria or hyperacidity, and of temporary or permanent pyloric obstruction, and of fairly constant findings of blood and of excess of hydrochloric acid.

55. **The Salomon Test in Gastric Carcinoma.**—Goodman draws the following conclusions:

1. Normal cases and cases other than gastric carcinoma are sometimes accompanied by more than 21 mg. nitrogen per 100 c.c. wash water.
2. Not all carcinomatous cases give a positive reaction, due probably to absence of ulceration.
3. The test is not pathognomonic, and can be regarded only as of doubtful assistance in conjunction with other features of the case.
4. The amount of phosphates in the stomach washings from a non-carcinomatous case is below 10 mg. per 100 c.c.
5. The percentage of phosphates in the washings of cases of carcinoma of the stomach usually exceeds 10 mg.

56. **Aortic Insufficiency.**—In the report of two cases of aortic insufficiency simulating aneurism, Piersol reviews the various opinions on the causes of the Flint murmur, which is still in doubt. He cites the opinion of Guiteras, that these murmurs result from what is essentially a mitral obstruction produced by the mitral valves being actively driven against the auricular blood current by the force of the general arterial tension operating through the regurgitant column of blood from the aorta, which condition is most likely to obtain when the posterior aortic leaflet is the chief seat of disease. Guiteras differs with Flint in believing that the leaflets are forcibly driven against the stream, not merely floated upward to vibrate between two opposing currents. Piersol considers that, as emphasized by Thayer, the explanation offered by Guiteras appears on the whole to be the most reasonable and satisfactory one to adopt.

Journal Missouri State Medical Association, St. Louis

May

61 Otitis Media. T. A. Coffelt, Springfield.
62 Pneumonia. Its Causes and Treatment. J. S. Newlon, Butler.
63 Capital Punishment a Trait of Barbarism. T. F. Lockwood, Butler.
64 Malpractice from the Doctor's Standpoint. J. Ashley, Bloomfield.
65 Therapeutics, and its Relation to the Practitioner. G. W. Whiteley, Albany, Mo.
66 Personal Experience in Gunshot Wounds. J. D. Seba, Bland.

Kansas City Medical Index-Lancet

May

67 Incipient Insanity, its Diagnosis and Treatment. J. Punton, Kansas City, Mo.
68 Chronic Suppuration of the Middle Ear. H. H. Look, Kansas City, Mo.

Western Medical Review, Omaha, Neb.

May

69 The Anesthesia of To-day. A. F. Burkard, Omaha.
70 Cystoscopy and Ureteral Catheterization. R. R. Hollister, Omaha.

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71 Medical Science Sufficiently Broad to Embrace Psychologic Law is the Basic Principle in the Treatment of Psychic, as well as of Physical, Disease. A. E. Clough, Madison, S. D.
72 Discriminative Therapeutics. J. Burke, Manitowoc, Wis.
73 Disinfection. J. L. Wicks, Evanston, Wyo.

Vermont Medical Monthly, Burlington

May

74 *Early Diagnosis of Malignant Diseases of the Breast and of the Uterus with Treatment, Including Coley Serum. S. E. Maynard, Burlington.
75 Infectious Diseases. S. W. Hammond, Rutland.
76 Dementia Precox. F. E. Farmer, St. Johnsbury.
77 Postpartum Hemorrhage. L. J. Pons, Roxbury, Conn.

74. **Malignant Diseases of the Breast.**—Maynard emphasizes the important points of his paper as follows: Any tumor in a woman's breast warrants an operation, not next month or next year, but now. Any unusual hemorrhage, discharge, or pelvic pain demands a thorough local examination, every means being used to make a diagnosis, and when the diagnosis has been made of a malignant growth in any portion of the uterus it becomes imperative that an operation should at once be performed. If the case is strongly suspicious, but the diagnosis is not absolute, it is best to err on the side of safety, and not to keep the woman under observation too long, but to operate at an early date.

Ophthalmic Record, Chicago

May

78 Keratitis Probably Due to Metastatic Gonorrhea. W. C. Posey, Philadelphia.
79 The Life and Labors of Dr. Richard Liebreich. J. O. McReynolds, Dallas, Texas.
80 Unilateral Retrobulbar Neuritis Due to Ethmoiditis, with Restoration of Vision. F. Krauss, Philadelphia.
81 The Local Ophthalmological Society. E. Jackson, Denver.

Monthly Cyclopedia and Medical Bulletin, Philadelphia

May

82 Extrauterine Pregnancy. J. B. Deaver, Philadelphia.
83 Importance of Careful Postoperative Treatment in Rectal Operations. H. A. Bray, Philadelphia.
84 Importance of the Joints of the Pelvic Girdle. J. E. Goldthwait, Boston.
85 Tuberculin Therapy. H. B. Weaver, Asheville, N. C.
86 Adrenal Principle as the Main Active Agent in Pituitary, Testicular, Ovarian and Other Animal Extracts. C. E. de M. Sajous, Philadelphia.
87 Acne Indurata. J. V. Shoemaker, Philadelphia.
88 Preventive Medicine. A. J. Burkholder, Mount Sidney, Va.
89 *Erysipelas: Etiology, Symptoms, Complications and New and Successful Method of External Treatment. L. C. Davis, South Milwaukee, Wis.
90 Claims of Psychology and Allied Branches in Modern Medicine. C. R. Harding, Philadelphia.
91 Acute Retention of Urine from Impaction of a Phosphatic Calculus in the Penile Urethra: Fatal Case of Beriberi. F. T. Woodbury, U. S. Army.

89. **Erysipelas.**—Davis advocates the treatment of erysipelas by the simple treatment employed in any acute infection accompanied by fever, rigors, and pain, viz., the administration of stimulating tonic remedies and bowel asepsis (sic). As the general condition may be gauged by severity of the skin affection, its intensity and area, he directs his energies to controlling the local focus of infection. By these means he has a record of nearly 300 patients treated successfully from the onset. He has tried without success all the ordinary measures of local treatment and falls back on the following:

℞. Carbolic acid ..... 3 parts
Spirits of camphor ..... 6 parts
Alcohol ..... 1 part

The amount of the acid is large, it readily penetrates the entire skin, destroys the infection promptly and leaves no scars, and causes no pain and but little smarting. The camphor prevents the burning effect of the phenol. A larger percentage of alcohol destroys the acid action too greatly. In mild cases one application a day is sufficient, extending fully an inch beyond the edge of infection. In more severe cases two or three applications a day may be made. It can be used often without fear of an untoward result. If the skin is very hot or dry the area may be covered with gauze wrung out of cold sterile salt solution.

Dominion Medical Monthly, Toronto

May

92 Experiences with Intraspinal Analgesia. H. A. Bruce, Toronto.
93 *What shall we Say to our Neurasthenic Patients? G. S. Young, Toronto.
94 Chronic Diffuse Nephritis with Terminal Infection. C. E. C. Cole, Toronto.

93. **Neurasthenic Patients.**—Young cites several instances showing the good effect, when tactfully given, of that form of inoirect suggestion, which has always been more or less practiced by the physician.

American Medicine, New York

May

95 Value of Milk Free Diet and Enteroclysis in Typhoid Fever. R. C. Kemp, New York.
96 Fees of Physicians and Surgeons. W. H. Peters, Providence, R. I.
97 Practical Points in the Submucous Resection of the Nasal Septum. H. M. Hays, New York.
98 History of the Lazarettos of Guiana. E. S. Goodhue, Honolua, Hawaii.
99 Practical Value of Cystoscopy in Surgical Diagnosis. F. J. A. Torek, New York.
100 Eggs and their Value as a Food. G. Jones, Toledo, Ohio.
101 Efficiency of the Bacillus Bulgaricus in Treatment of a Case of Unilateral Chronic Suppurative Pansinusitis. O. Glogau, New York.
102 Gumma of the Femur in a Child. M. M. Stark, New York.

The Montreal Medical Journal

May

103 Multiple Neuritis. N. Viner, Montreal.
104 Voluminous Sarcoma of the Bulbo-Palpebral Conjunctiva. J. N. Roy, Montreal.
105 Cerebral and Epidural Abscesses of Otitic Origin. G. T. Ross, Montreal.
106 *Multiple Traumatic Perforation of Small Intestine. J. C. Fyshe, Bangkok, Siam.
107 *Cholecystitis, Vomiting of Gallstones—Recovery. G. Johnson, Cumpas, Mexico.
108 Capsule Forceps in Cataract Extraction. F. Tooke, Montreal.

106. **Multiple Traumatic Perforation of Small Intestine.**—The case reported by Fyshe is of sufficient interest to report, showing, as it does, what the peritoneum may do under certain circumstances with no more surgical aid than a mere drainage incision. A boy 14 years of age was shot in the abdomen at close range with a large caliber revolver. He presented an irregularly circular wound about one-half inch across just inside the anterior superior spine on the right side. There had been very little bleeding from the wound; there was no escape of gas or fluid nor any viscus present. The abdomen was generally resistant, both flanks were dull, but the dulness was not movable. Liver dulness appeared normal. The pulse was over 160, respiration rapid and shallow, pupils dilated and expression anxious. The patient did not complain of pain and had passed clear urine since receiving the injury. The bowels had not moved. There was a good deal of shock, nevertheless the abdomen was opened immediately in the mid-line, below the umbilicus, by an incision about 3 inches long. Much blood and some fecal material of small gut consistency came away. The small intestine was delivered and almost at once a wound perforating both sides of the gut was found. Near it was a laceration on the anti-mesenteric side of the gut about one and one-half inches long. There was also much bruising of the mesentery between these two. The three wounds were closed in the usual way. Further examination showed seven more traumatic perforations of gut and mesentery within a distance of six feet. All this and the boy's condition made the case seem so hopeless that the abdominal opening was closed with through and through sutures after a large drainage wick had been placed in the lower angle extending freely into the abdomen. He was freely stimulated, given all the milk he could take and repeated large enemas. The drainage wick was removed on the second day and not reinserted. On the third day a small amount of fecal matter was passed by rectum and daily thereafter the quantity coming away naturally increased, and that by the wound decreased. With the first stool by rectum the boy's condition improved and it did so steadily and without further setback. One month after the accident the boy was up and about and it was found that he had been eating rice, bananas, fish and cakes for ten days previously.

107. **Cholecystitis.**—Johnson's patient, a woman aged 60, suffered from flatulent dyspepsia for 30 years. She had numerous attacks of colic, accompanied by vomiting during this same period. These attacks never lasted loag, and though severe at the time never laid her up for more than one day. The pain was always worse on the right side ard was frequently referred to the right shoulder. She never was jaundiced, or noticed clay-colored stools. In September, 1908, she was laid up with some fever, of what nature she does not know. She was in bed for two weeks, five days of which

she was delirious. She had no pain or cough at this time. In April, 1908, she complained of great pain in the abdomen, and vomiting. The pain had commenced three days previously, in the right upper quadrant of the abdomen, and was also referred to the right shoulder. She had vomited several times and had had no passage by the bowels since the pain began. She had had chills every day; but they did not come regularly. The abdomen was distended, especially in the right upper quadrant, where a bulging was distinctly visible, extending from the costal margin to the level of the umbilicus and from the middle line to the anterior axillary line. This mass was seen to move up and down with respiration. Respiration was very shallow. There was no visible peristalsis. On palpation the abdomen was resistant, especially over the mass. The whole abdomen was tender; but it was extremely so over the mass. This mass had a definite rounded outline, was firm to the touch, and was attached to the liver. It could be felt extending into the loin. Nothing else abnormal was found. A diagnosis of empyema of the gall bladder was made and operation was advised. This was absolutely refused. Hot linseed meal poultices were applied constantly, changing them every half hour. The bowels were moved with an enema. For about ten days she had recurring chills, sometimes two or three in a day. The mass gradually diminished in size, and the pain gradually disappeared. During this time she had no colic; she was delirious at night for seven nights. The temperature and pulse gradually came to normal, by the end of three weeks. She got up at the end of a month, although there was still a mass the size of an orange in the region of the gall bladder; this, however, was no longer tender. She had two mild attacks of pain during the summer, lasting two and three days respectively. She had another severe attack in September, 1908, similar to that in April. She was treated as before with poultices and was able to get up in ten days. The mass still remained about the size of an orange. In October, 1908, she was again seized with pain and vomiting and chills. That night she was delirious all night, and in the morning she looked very ill and complained that the pain was nearer the middle line than usual. The same abdominal conditions were found. She had a sudden very acute pain accompanied by a feeling of faintness, and then the pain in the abdomen seemed less acute. Shortly after this she vomited eight facetted gallstones about the size of a pea, along with some stinking pus. In the afternoon she had a repetition of the pain and she vomited up eight more gallstones. She rapidly improved from this time on and was able to get up in three days.

Wisconsin Medical Journal, Milwaukee

May

109 *Early Diagnosis of Tuberculosis. T. H. Hay, Stevens Point.
110 *Routes of Invasion in Tuberculosis. M. P. Ravenel, Madison.
111 *Rural Tuberculosis. F. Johnson, North Freedom.
112 *Tuberculosis. N. L. Howison, Menomonie.
113 Pathology and Clinical History of Three Cases of Actinomycosis with Apparently Direct Contagion. L. Falge, Manitowoc.
114 Three Important Time-Saving Urinary Tests. H. R. Harrower, Chicago.

109 to 112. Abstracted in THE JOURNAL, Aug. 8, 1908, p. 525.

Journal of the Tennessee State Medical Association, Nashville

May

115 *Hippocrates—Past, Present and Future. B. D. Bosworth, Knoxville.

115. Abstracted in THE JOURNAL, May 1, 1909, p. 1449.

Yale Medical Journal

May

116 Rational Hydrotherapy vs. Turkish Baths. Robert E. Peck, New Haven, Conn.
117 Matters Concerning the Nutrition of the Young. C. A. Goodrich, Hartford, Conn.
118 *The Feeding of Sick Children. M. W. Williams, Hartford, Conn.

118. **Feeding of Sick Children.**—Williams claims that the chronic gastrointestinal disorders of childhood are brought on by improper feeding and give a train of symptoms which used to be attributed to worms. They are best treated by putting a child on a strict diet of milk—or cream and whey mixture —with scraped beef and fruit juice. An estimate of the caloric value of food given is useful in indicating the amount of food to maintain the child's nutrition. In cases of nephritis or cases in which we fear kidney involvement, the amount of proteid should be limited, because urea, the end-product of the proteid, is difficult for the kidneys to excrete. Meat and eggs should not be given. Cream and milk mixtures or cream and whey mixtures should be our mainstay. They are to be preferred to straight milk because they have a higher caloric value in proportion to the amount of proteid and water which they contain.

Atlanta Journal-Record of Medicine

April

119 Autointoxication. T. J. McArthur, Cordele, Ga.
120 Ocular Symptoms in General Medicine. A. W. Stirling, Atlanta.
121 Whooping Cough. S. A. Visanska, Atlanta.
122 Work of the Home Treatment Dispensary for Tuberculosis. L. M. Haines, Atlanta.
123 *Thrombosis of the Popliteal, Anterior and Posterior Tibial Arteries Complicating an Appendiceal Abscess. J. L. Campbell, Atlanta.
124 Uterine Deviations, Significance, Prevention and Treatment. R. R. Kime, Atlanta.
125 Pistol Shot Wound of Abdomen. T. M. McIntosh, Thomasville, Ga.

May

126 Retrobulbar Optic Neuritis. A. W. Stirling, Atlanta.
127 Surgical Manifestations in Hysteria. W. Taylor, Atlanta.
128 Principal Cause of Typhoid Fever is the Common House Fly. J. W. Palmer, Alley, Ga.
129 Antirabic Serum with Report of Cases. J. N. Brawner, Atlanta.
130 The Doctor—His Relation to Public Sanitation. J. C. Beauchamp, Williamson, Ga.

123. **Thrombosis of the Leg Arteries Complicating Appendiceal Abscess.**—The points of particular interest in Campbell's case are:

1. The improvement for thirty hours after the opening of the abscess.
2. The delayed shock—red color of face and nails during the shock.
3. Vomiting, which was relieved by opening the colon.
4. Four days' steady improvement after opening the colon.
5. Six days after the abscess was opened the left leg was attacked (a) by numbness and tingling, (b) fifteen hours later there was severe pain, the limb becoming pale and livid with complete loss of function and sensation below the tubercle of the tibia.
6. The areas of discoloration and lines of demarcation with change of color in the foot and lower third of the leg while the upper third remained the same through the whole attack.
7. The artery filled with the clot in which the pneumococcus was found while there had been no heart or lung symptom.
8. The empty veins. The leg was amputated above the knee.

American Journal of Orthopedic Surgery, Philadelphia

May

131 *An Anatomic and Mechanical Study of the Shoulder Joint, Explaining many of the Cases of Painful Shoulder, many of the Recurrent Dislocations, and many of the Cases of Brachial Neuralgias or Neuritis. J. E. Goldthwaite, Boston.
132 Bone Pathology in its Relation to General Pathology. C. M. Cone, Baltimore.
133 *Bone Fragility and Eburnation of Rachitis. W. Blanchard, Chicago.
134 *Myositis Ossificans. C. F. Painter and J. D. Clarke, Boston.
135 *Pathologic Anatomy of Congenital Hip Dislocation. W. G. Turner, Fall River, Mass.
136 *Painful Feet of Raynaud's Disease. H. A. Wilson, and C. H. Muschlitz, Philadelphia.
137 *The Question of Balance. A. G. Cook, Hartford, Conn.
138 New Form of Shoemaker's Last. A. G. Cook, Hartford, Conn.
139 Diffuse Painful Lipoma of the Foot. A. H. Tubby, London, Eng.
140 *Mechanical Lesions of the Sacroiliac Joints. R. R. Fitch, Rochester, N. Y.
141 Description of Apparatus for the Application of Plaster-of-Paris Bandages. N. Allison, St. Louis.
142 *Treatment of Rheumatoid Arthritis. F. E. Peckham, Providence, R. I.
143 Mechanics of Lateral Curvature. P. Ewald, Hamburg, Germany.

131, 136. Abstracted in THE JOURNAL, Aug. 8, 1908, pp. 526, 528.

133, 134, 135, 140, 142. Abstracted in THE JOURNAL, July 25, 1908, pp. 342, 343, 344.

137. Abstracted in THE JOURNAL, Aug. 1, 1908, p. 431.

Woman's Medical Journal, Toledo, O.

May

144 Etiology, Prophylaxis, and Early Treatment of Pelvic Disorders in Girls and Young Women. E. M. Mosher, Brooklyn.
145 Re-Education in Medical Practice. E. Garrigue, New York.
146 Pernicious Anemia. M. L. Massey, Buffalo.
147 Menorrhagia. M. J. Potter, Niagara Falls.
148 Traumatic Neurasthenia. E. D. Justin, Castile, N. Y.
149 Multiple Gangrene Following a Probable Slight Thermal Change in one Extremity. A. C. Spofford, Batavia, N. Y.

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St. Louis Medical Review

May

150 Principles of the Modern Treatment of Gonorrhea. J. L. Boehm, St. Louis.
151 Gonorrhea in Its Relation to the Eye. M. Wiener, St. Louis.
152 Joint Complications of Gonorrhea. P. Hoffmann, St. Louis.
153 The Cardiac Complications of Gonorrhea. L. H. Behrens, St. Louis.
154 The History of Medicine. J. McClure.

Journal Kansas Medical Society, Lawrence, Kas.

May

155 Tuberculosis. C. C. Goddard, Leavenworth, Kansas.
156 *Technic of Skin Grafting. N. C. Morrow, Altamont, Kansas.
157 Penetrating Abdominal Wounds. R. C. Lowman, Kansas City, Kansas.

156. **Skin Grafting.**—Morrow describes in detail the technic of skin grafting and sums up the various steps as follows:

1. Graft only on a freshly cut aseptic surface, or on healthy granulation tissue, without curetting or otherwise disturbing the surface.
2. Avoid the use of strong antiseptic solutions on the graft or on the denuded area directly before or at the time of grafting.
3. Take grafts from the individual to be grafted.
4. Spread the grafts directly on the denuded area, and see that the entire surface is covered.
5. A plain gauze dressing, if properly applied, meets all requirements, and is the simplest and most satisfactory to use.

Memphis Medical Monthly, Memphis, Tenn.

May

158 Porro Cesarean Section, Occasioned by Large Multilocular Ovarian Cyst Complicating Pregnancy—Recovery of Mother and Child. F. D. Smythe, Memphis.
159 Cystic Tumor of Brain in a Child of Six Years. W. T. Black, Memphis.
160 Rachitis. J. D. Bridger, Memphis.
161 Catarrhal Pneumonia as a Sequel to Influenza. D. A. Walker, Trenton, Tenn.
162 The Treatment of Skin Cancer by the X-Ray. W. S. Lawrence, Memphis.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

June 5

1 *Neurotic Element in Disease. G. Rankin.
2 Treatment of Eczematous Patients. E. G. Little.
3 Distribution of Longevity in England and Wales. W. Gordon.
4 Diagnosis and Treatment of Severe Anemia. C. H. Melland.
5 Pernicious Anemia with Pigmentation of the Skin and Buccal Mucous Membrane. J. Aitken.
6 Cardiac Disease. W. B. Jones.
7 *Case of General Paralysis of Insane with Extraordinary Lymphocytosis in the Cerebrospinal Fluid. W. Boyd.
8 Anesthetics in General Practice. H. B. Gardner.
9 Resection of the Trachea for Cicatrical Stenosis. G. G. Turner.
10 *Treatment of Facial Paralysis Due to Division of the Facial Nerve in the Mastoid Operation. F. Marsh.
11 Distribution of Bilharziosis on the Victoria Nyanza. J. H. Cook.
12 Fatal Hemoptysis in an Infant. E. H. Thomas.
13 Facial Paralysis Following Emotional Shock. P. C. Fenwick.

1. **Neurotic Element in Disease.**—Rankin cites a number of instances to prove his contention that the neurotic element in disease is one to reckon with, and that, despite some incredulity on the subject, there is no getting away from the fact that symptoms which are apparently wholly functional dominate the aspect of many illnesses, that they may obscure the true significance of organic manifestations, and that not infrequently they are so much the end-all and be-all of a disordered state of health as to justify the assumption that—at any rate so far as the present state of our knowledge enables us to judge—the neuroses must be taken into account as definite integers in our conception and treatment of disease.

7. **Extraordinary Lymphocytosis in General Paralysis.**—Under normal circumstances the number of lymphocytes in a field of 450 diameters, in a film made after centrifugalizing 5 c.c. of the cerebrospinal fluid for a period of ten minutes, is usually two or three. In tabes and general paralysis of the insane the number is greatly increased. In several cases which Boyd examined during the past six months the number has been from 200 to 250. In one case the enormous number of 3,450 was counted in a single field of 450 diameters; in places where the film was thick this number was greatly exceeded, but, owing to the thickness of the clumps, the exact number could not be estimated. In the non-centrifugalized cerebrospinal fluid the number of leucocytes (almost all lymphocytes) was no less than 285 per c.mm.

10. **Treatment of Facial Paralysis Due to Division of Facial Nerve.**—Marsh reports two cases in which the facial nerve was divided during a mastoid operation. In one case the facial nerve was completely divided, and the proximal end frayed and everted by the gauze packing. The proximal end was teased into its normal position—coming almost in contact with the distal end; two or three strands of fine chromic gut were placed around the nerve, the ends being inserted into the bony canal, and the parts protected for a short time by gutta-percha tissue in the manner described by Sydenham. Gentle galvanism was subsequently employed; slight return of power commenced in six weeks, and complete recovery resulted. In the other case the facial nerve was divided on Jan. 14, 1908, in clearing a cholesteatomatous mastoid which had been operated on twice previously, the relation of the parts being much altered by bone absorption. The division was recognized at the time, and the nerve ends were carefully approximated and protected for a few days with gutta-percha tissue. The operation cavity became rapidly covered with epidermis from the meatal flaps, under hydrogen peroxid and spirit treatment. As no sign of regeneration appeared in a month (February 13), it was decided to reopen the cavity and examine the nerve ends. The ends were readjusted and a strand of fine chromic gut was with difficulty inserted in each of the aqueduct openings. The postaural wound was closed and the cavity rapidly healed with suppuration. Gentle galvanism was continued, but it was not until the end of June—four months later—that signs of power commenced in the mouth muscles; the improvement steadily extended to the other muscles, and the power had by May 7 returned to all except the corrugators of the brow.

Lancet, London

June 5

14 Hypernephroma. W. Trotter.
15 *Results of a Year's Use of Vaccines in General Medicine. W. H. White and J. W. Eyre.
16 *Experimental Evidence of the Infective Origin of Carcinoma. W. F. Robertson.
17 *Recurrence of Vesical Calculi After Removal in Series of 160 Operations. F. A. Southam.
18 Pustule Simulating Anthrax Due to Organisms of the Porteus Group. T. Orr.
19 Sudden Failure of Respiration Restored by Artificial Means. R. Knox and J. Morison.
20 Tropical Form of Adenitis Apparently Due to an Unrecognized Organism. R. L. Ley.
21 Action of Digestive Ferments and Tissue Extracts, Hypodermically Injected, on Malignant Tumors in Mice. J. A. Shaw-Mackenzie.
22 Labor Obstructed by a Fibroid Tumor; Cesarean Section; Supravaginal Hysterectomy. C. E. Purslow.
23 Hernia Through the Foramen of Winslow. W. H. Haw.
24 Acromegaly. E. P. Carmody.

15. **Use of Vaccines in General Practice.**—White and Eyre employed vaccines in 10 cases of genitourinary disease, 4 cases of diseases of the alimentary system, 8 cases of empyema and subdiaphragmatic abscess and 7 miscellaneous cases. They believe that in not one of these 29 cases did the vaccines do any harm, and in the great majority it appeared that distinct benefit followed from them; in some, indeed, they saved the patient's life.

16. **Infective Origin of Carcinoma.**—The material used for the purposes of the experiments conducted by Robertson consisted of about 300 c.c. of fluid from the pleural cavity of a woman suffering from malignant pleurisy, secondary to mammary carcinoma, and of about 500 c.c. of fluid from the peritoneal cavity of a patient with malignant peritonitis. The flasks were incubated at 37 C. and the fluid remained sterile as regards bacteria. The experiments were carried out on mice and have been fully controlled by the observation of a much larger number of animals of the same stock kept under similar conditions. During the past three years this stock has consisted of from 60 to 80 mice, among which there has always been a considerable proportion of aged animals. None of these mice have developed external tumors. Robertson examined over 60 mice that have either died in the course of being subjected to ordinary virulence tests, or have been found dead in their cages, and he has not been able to observe

any internal carcinomatous lesions. Among these animals a sufficient number to form a satisfactory control series were of ages not less than those of the mice on which experiments were made. Seven out of 30 mice developed carcinomatous tumors. As the control animals have not shown any similar tumors, and as the only difference in the treatment of the two series was that the 30 mice were fed with incubated carcinomatous material from the human subject, Robertson infers that the epithelial tumors were determined by some agent contained in this carcinomatous material. As none of the 11 animals injected or fed with the fluid from the case of malignant peritonitis developed carcinomatous growths, it seems probable that this agent was contained in the fluid from the case of malignant pleurisy. On the ground of the experimental results, Robertson contends that the pathogenic agent transferred from the human subject to the mouse was not merely a chemical substance, but must have been a living virus. From one of the mammary tumors occurring in these mice he made several cultures on non-nutrient agar-gelatin. These cultures have been studied in section by means of the ammonio-silver process by Dr. M. C. W. Young, who has been able to demonstrate in them certain morphologically characteristic forms identical with those already observed in malignant tumors from the human subject and more recently in one of the original Jensen mouse tumors. Some of these forms have also been demonstrated in these experimental tumors, as well as in a mammary tumor produced in a previously healthy mouse by inoculation of one of these growths. More recent observations lead to the conclusion that a group of protozoan organisms to be classed among the myectozoa and including very numerous pathogenic species, is associated with tumor growth, just as very numerous pathogenic species of schizomycetes are associated with inflammation. The main phases in a complicated life cycle have now been demonstrated in sections of tumors, in sections of agar cultures from tumors, and in films of the centrifuge deposit from fluid from cases of malignant pleurisy secondary to carcinoma of the breast. The phases recognized include forms with flagella sporoblasts and their residua, nucleated forms, some of which have been observed in mitosis, and certain other remarkable bodies of characteristic appearance which almost certainly represent gametes.

17. **Recurrence of Vesical Calculi.**—Southam says that a recurrence of calculi after operation is relatively not more common after lithotrity than after lithotomy; and when it does take place it is in both instances probably due to the descent of a fresh calculus from the kidney and its retention in the bladder. The percentage of recurrences after lithotrity was 7.1, and 7.2 after lithotomy.

The Medical Press and Circular, London

May 26

25 The Feeble-Minded and Their Care. G. H. Savage.
26 Suprapubic Prostatectomy. G. P. Newbolt.
27 Treatment of Cholera. L. Rogers.
28 Essentials of Physiologic History. D. F. Harris.

The Clinical Journal, London

May 26

29 Empyema. W. H. White.
30 A Case of Enteric Fever. J. A. Ormerod.
31 The Etiology of Gout, Rheumatism and Rheumatoid Arthritis. C. W. Wirgman.

Journal of Tropical Medicine and Hygiene, London

May 15

32 Etiology on Treatment of Ulcerative Granuloma of the Pudenda. J. B. Cleland, and J. R. Hickinbotham.
33 *Unusual Manifestations of Malaria. E. N. Graham.

33. **Unusual Manifestations of Malaria.**—Graham reports three cases of malaria in which the symptoms were not at all typical. The first patient was feeling "seedy," consulted a doctor, and was given a tonic of quinin and strychnin. No sooner had he taken the last dose in the bottle than toxic spasm started first in the face, then on both sides of the body, arms, legs and back. He became unconscious, breathing was labored, and he foamed at the mouth. The spasms, which came on every three or four minutes and lasted for a minute, were violent, and though morphin was given and the stomach washed, yet it was not till two hours after the onset, and when the patient was under full chloroform anesthesia, that these stopped altogether. The blood was examined, but no parasites were found, yet his temperature was 104 F. at 6 p. m. Quinin, 10 grains, was injected, and the dose repeated twice in the night. Next morning he was still unconscious, his temperature 103 F., and when touched all the muscles of the body would contract; 20 grains of quinin were now injected into the median basilic vein. In the afternoon his temperature was only 100 F.; the intravenous injection was repeated. Next morning he had regained consciousness, and was able to speak and recognize his brother, and from that time he continued to improve, and his temperature never rose above 100 F. But for the next two weeks he had definite delusions—that he was accused of a certain crime for which he was being tried. At times he became maniacal, would refuse his food, and tried to commit suicide. However, with chloral and bromid and the quinin he got well.

The second patient was admitted for "fever." The temperature was 102 F., but there were no parasites in the blood—at least none were found after three examinations, nor was there anything abnormal in the chest or abdomen. Quinin (10 grains) was given three times a day by mouth. On the second day he complained of pain in the right iliac region; the lower part of the abdomen was tender, tympanitic and did not move on respiration; the legs were flexed. Temperature 101.8 F., pulse 112; tongue dirty, but there was no vomiting, and an enema gave good result. An exploratory laparotomy was proposed, but refused. An ice-bag was placed over the appendix region, and the quinin was now injected in the muscles. The following day the temperature was normal, the pain and tenderness had disappeared and four days later the patient left the hospital.

In the third case the patient was admitted with a history of frequent stools, four to five a day, tenesmus and blood. His temperature was 99 F. No parasites could be found in the blood; the stools were pale, bulky, with a little blood, but no mucus. Large doses of ipecacuanha were given, but there was no improvement. The blood was again examined, and subtertian parasites were found. Quinin was now given; 10 grains were injected twice a day. At the end of four days he left the hospital feeling quite well, and all the symptoms had disappeared. These three cases are interesting from the fact that the microscope did not reveal the presence of parasites, and quinin by mouth had no effect. All these patients came from highly malarial districts.

Journal of Hygiene, London

April

34 Antiplague Measures in San Francisco, California. R. Blue.
35 Points Bearing on the Bacteriology of Cerebrospinal Meningitis. W. St. C. Symmers, and W. J. Wilson.
36 Cider and Perry. I. Sulphite Preservatives. H. E. Durham.
37 Relative Efficacy of the Doulton, Berkefeld and Brownlow Filters. A. Wilson.
38 *Transmission of Air and Micro-organisms Through Berkefeld Filters. W. Bulloch and J. A. Craw.
39 Danysz Effect with Reference to the Toxin-Antitoxin Reaction. J. A. Craw.
40 Plague in Further India. J. D. Gimlette.
41 *Anti-serum for Scorpion Venom. C. Todd.
42 Differentiation of Lactose-Fermenting Bacilli, with Special Reference to those of Intestinal Origin. A. MacConkey.
43 Varieties of the Meningococcus with Special Reference to a Comparison of Strains from Epidemic and Sporadic Sources. J. A. Arkwright.
44 *Experimental Lead Poisoning. K. Goadby.

38. **Berkefeld Filters.**—In January, 1908, Bullock, Atkin and Craw reported that the Berkefeld filters rapidly became contaminated so as to transmit bacteria at periods varying from a few minutes to a few hours. As a criticism of their work it was asserted that the Berkefeld filters could not stand the method of sterilization resorted to by Bulloch and Craw, which consisted in heating in an autoclave to 120 C., but must be sterilized by placing in cold water, raising the water to the boiling point and boiling for an hour. Bulloch and Craw have repeated their experiments, using this method of sterilization and find that heating to 120 C. in an autoclave does not make the filtering tubes much more permeable to air, but that the tubes when sterilized as directed still transmit bacteria, yielding an infected filtrate in a short time. Such filters are particularly liable to become pervious at the junction between the metal socket and the Kieselguhr mass.

41. **Anti-Serum for Scorpion Venom.**—Todd reaches the following conclusions from his investigations: 1. The immunization of suitable animals with scorpion venom gives rise to the

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production of an antivenom. 2. This anti-venom is capable of neutralizing the venom when mixed with it *in vitro*, and also acts both prophylactically and curatively in animals. 3. The venom is not fixed by the central nervous system, as is the case with tetanus toxin. 4. Calmette's anti-venine could not be shown to have any neutralizing effect on the venom used. 5. Employed curatively in man, the serum appears to have a very marked effect on the intense pain following the sting.

44. **Experimental Lead Poisoning.**—Goadby attempted to imitate the conditions under which lead poisoning occurs in mines, factories for grinding lead, etc. Cats were exposed to the dust of various compounds of lead and showed the symptoms of lead poisoning, while controls did not develop such symptoms. The author's experiments show that poisoning may take place through the lung as well as through the gastrointestinal tract, and that susceptible animals exposed for short periods to air laden with lead dust develop symptoms of lead intoxication in a way analogous to the poisoning which takes place in men engaged in industrial processes and exposed to deleterious effects of lead-dust laden air.

Indian Medical Gazette, Calcutta

April

45 Tuberculosis Among Europeans in Calcutta. H. W. Pilgrim.
46 Incidence of Phthisis in Calcutta. T. F. Pearse.
47 Prevalence of Tuberculosis Among our Community. G. C. Chatterjee.
48 Hazaribagh and Tuberculous Disease. B. H. Deare.
49 Hazaribagh in Relation to Tuberculous Disease and Its Treatment. I. G. F. Hearn.
50 Darjeeling Climate in the Treatment of Phthisis. J. T. Calvert.
51 Notes in Support of Captain Megaw's Article, "Are Seven-Day Fever and Three-Day Fever Forms of Dengue?" H. Fooks.
52 Intestinal Animal Parasites in Monghyr. C. Lane.
53 Epidemiology of Pneumonic Plague. C. A. Gill.

Annales de Medecine et Chirurgie Infantiles, Paris

May 15, XIII, No. 10, pp. 325-360

54 *Electrotherapy in Diagnosis and Treatment of Infantile Paralysis. H. Marquès.
55 Advantages of the Acetic-Mercuric Chlorid Test for Control of Bile-Intestine Functioning. Triboulet, Ribadeau-Dumas and Harvier.

54. **Electrotherapy in Diagnosis and Treatment of Infantile Paralysis.**—Marquès states that the main features of electrotherapy in these cases are continuous galvanization of the paralyzed groups of muscles or limb during the first period. This is followed by a period of rhythmically interrupted galvanic stimulation of the paralyzed muscles with the pole which the electrodiagnosis has shown to be the predominant one. This combats both the causal affection and the consecutive atrophy. The electrotherapy must be kept up for three or four years, he states, with sittings every second day at first, then from three times to once a week. This treatment is unable to create new cells but it ensures a relative cure and prevents further deformity in nearly every case; massage is useful as an adjuvant. Retraction of the antagonist muscles must be carefully supervised and appliances used when necessary to maintain the correct position.

Archives des Maladies du Cœur, Etc., Paris

May, II, No. 5, pp. 257-320

56 *Inherited Syphilis. (Purpura hémorragique et syphilis héréditaire. Histologie des lésions et localisations du spirochète.) J. Sabrazès and R. Dupérié.
57 Anemia from Gallstones. (Anémie avec réaction normoblastique dans un cas d'ictère grave par calcul du cholédoque.) Devic and Rieux.
58 *Case of Cardio-Tuberculous Cirrhosis. L. Babonneix and Paisseau.

56. **Inherited Syphilis.**—Sabrazès and Dupérié report a careful histologic study of a case of hemorrhagic purpura and inherited syphilis, confirming anew the ubiquity of the spirochete and the way in which it affects all the tissues. They exclaim in conclusion: "How much trouble would be avoided by rational treatment of the parents, and how early and energetic should be the specific treatment of the new-born!"

58. **Cardio-tuberculous Cirrhosis.**—The child of 7 in the case reported presented in typical form all the fundamental lesions of this condition: adhesive pericarditis, pleuro-pulmonary tuberculosis, multiple lesions in liver and spleen and in the brain.

Bulletin de l'Académie de Médecine, Paris

May 11, LXXIII, No. 19, pp. 561-579

59 *Chronic Appendicitis and Cancer of Appendix. L. G. Richelot.

59. **Chronic Appendicitis and Cancer of the Appendix.**—Richelot pleads for the removal of the appendix in all cases of chronic appendicitis, reporting several instances in which the appendix was found apparently normal and yet its removal put an end to chronic annoying and debilitating disturbances. Another point which he emphasizes is that the frequency of cancer of the appendix should encourage surgeons to operate. In one of his own cases a young woman with gastrointestinal disturbances from childhood but no constipation or mucomembranous enteritis had the appendix removed after a few attacks of subacute appendicitis. The appendicectomy put an end completely to all disturbances and the microscope revealed an incipient epithelioma in the appendix. A recent Paris thesis summarizes 15 cases of cancer of the appendix reported in France, and nearly 80 have been recorded in international literature to date. The cancer was detected in the early stage before it had spread much beyond the appendix in all but 4 or 5 cases.

Presse Médicale, Paris

May 26, XVII, No. 42. pp. 377-384

60 *Obliteration of the Common and External Iliac Arteries without Gangrene of the Leg. G. Rogue and J. Chalier.
61 *Antisepsis of the Skin with Tincture of Iodin. (Antisepsie de la peau par la Teinture d'iode.) Guibé.

May 29, No. 43, pp. 385-400

62 Principal Clinical Characteristics of Cerebrospinal Meningitis. R. Debré.
63 *Antimeningococcus Serotherapy. Grysez.
64 *Local Serotherapy in Ocular Affections. A. Cantonnet.
65 Technic of Lumbar Puncture. (La ponction Lombaire.) P. Desfosses.
66 Identification of the Meningococcus. (Technique essentielle de la recherche et de l'identification du méningocoque de Weichselbaum.) L. Lagane.

60. **Obliteration of Iliac Artery Without Gangrene of Leg.**—If on the alert, the symptoms of obliteration of the common iliac artery will be recognized as they appear. The patient should be kept perfectly still in bed and the limb kept warm with hot water bottles and frequent frictions. The general circulation should be stimulated, the heart action made more energetic, with, possibly, massage to favor the fragmentation of the clot and prevent secondary clot formation. The anatomic conditions are such that obliteration of the common iliac alone does not threaten gangrene on account of the wealth of anastomoses. Surgical interference has given negative results to date and medical measures are still exclusively indicated.

61. **Disinfection of the Skin with Iodin.**—Guibé confirms the importance of tincture of iodin for simple, easy and complete disinfection of the skin. The field of operation is swabbed with the tincture, whose advantages for this purpose were recently summarized in these columns. The tincture must be kept corked to prevent evaporation of the alcohol with undue concentration of the iodin. No untoward by-effects have been observed to date from its use.

63. **Antimeningococcus Serum.**—Grysez advises injection of antimeningococcus serum whenever the cerebrospinal fluid looks turbid in a case presenting symptoms of meningitis, without waiting for the report from the bacteriologic examination. The injection should be repeated the second and third days, supplemented by prolonged warm baths, and under this treatment the disease will have a favorable outcome in the majority of cases.

64. **Local Serotherapy in Ocular Infections.**—Cantonnet concludes from analysis of the cases that have been reported in which general serotherapy was supplemented by four or six daily instillations of the antiserum in question, that the local treatment gives excellent results in the early stages of the infection but is powerless after mixed infection has developed. Subconjunctival injections may be useful in diphtheritic conjunctivitis but under other conditions instillation is sufficient.

Archiv für klinische Chirurgie, Berlin

LXXXIX, No. 2, pp. 281-503. Last indexed May 8, p. 1549

67 Partial Sequestration of Transplanted Bone Tissue. (Vorgang partielle Sequestrirung transplantirten Knochengewebes.) G. Axhausen.
68 Surgery of the Pancreas. F. Rosenbach.

69 Ultimate Outcome of Radical Herniotomies. (Dauerresultate der Radikaloperation bei Hernien.) A. Sertoli.
70 Lateral Retroperitoneal "Ovarian Cyst." (Ueber einen retroperitonealen, höchstwahrscheinlich oophorogenen Tumor.) W. Pullmann.
71 Spinal Anesthesia, especially for Laparotomies. (Erfolge der Medullaranästhesie, speciell bei Laparotomien.) Zaradnicky.
72 Umbilical Adenoma. (Nabeladenom.) W. Müntz.
73 Pseudotumors in Region of Appendix. (Perityphlitische pseudo-neoplastische entzündliche Tumoren.) F. Gangitano.
74 Atypical Laceration of Patella Ligament. (Zerreissung des Kniestreckapparates.) K. Appel.
75 Bronchobiliary Fistula. (Gallengang-Bronchusfistel.) J. Tyrman.
76 Technic of Resection of Intestine in Artificial Anus. (Technik der Darmresection bei der Behandlung des Anus praeternaturalis.) M. Mori.
77 *Simple Method of Operative Treatment of Prolapse of Rectum in Children. (Behandlungsmethode des Prolapsus recti bei Kindern.) G. Ekehorn.
78 *New Device for Anastomosis of Intestines, Etc. (Eine neue Methode zur Anlegung von Gastroenterostomien, Darm und anderen Anastomosen.) A. Oschmann.
79 Development of Tibial Tubercle and a Typical Affection in Adolescents. (Entwickelung der Tuberositas tibiæ und ihre typische Erkrankung in der Adoleszenz.) W. Bergemann.
80 Retroperitoneal Hernia. (Hernia retroperitonealis Treitzii totalis accreta.) R. Felton.

77. Abstracted in THE JOURNAL, June 12, page 1966.

78. **Substitute for Intestinal Button in Anastomosis.**—Oschmann claims a number of advantages for the method of anastomosis described and illustrated in this article. He says that it has all the advantages of the Murphy button with none of its drawbacks. The principle consists in the application of two small plates, one of which has a row of holes and the other has the surface cut into in such a way that a row of thorn-like spikes are cut out of the plate and stand erect, each spike corresponding to one of the holes in its fellow plate. Each plate is cut out in the center so that it fits over a long centerpiece projecting in the blade of a special clamp forceps. The blades of the forceps, each loaded with its plate, are introduced into the organs to be joined, one in each organ. By shutting the blades the two little plates are brought into juxtaposition and the spikes on one enter the holes in the other and are riveted down by the pressure of the forceps blades. The two plates thus cling together in place as the forceps are withdrawn. The ideal is to make the plates of absorbable material, but magnesium proved too fragile for the purpose, and he uses an alloy of magnesium with iron or aluminum. The incisions required for the introduction of the blades of the forceps are very small, the anastomosis is over a wider area than with a button; the long, rounding, narrow plates are readily evacuated, and permit the passage of stools, while the anastomosis is more complete and the junction hermetically closed. He reports experimental tests of the new method and its successful application in one clinical case.

Berliner klinische Wochenschrift

May 17, XLVI, No. 20, pp. 909-956

81 Status of Physiology in the Medical Curriculum. (Stellung der Physiologie im Universitätsunterricht.) M. Rubner.
82 *Natural Healing Processes in Brain Tumors. (Selbstheilungsvorgänge bei Gehirngeschwülsten.) Anton.
83 *Importance of Monkeys for Tests of Antiserums. (Antistreptokokkenserum.) Zangemeister.
84 *Laparotomy under Momburg's Belt Constriction for Uterine and High Rectal Carcinomas. (Laparotomia hypogastrica unter Anwendung des Momburgschen Taillenschlauches bei Uterus und hochsitzendem Rektumcarcinom.) Neuhaus.
85 Tumors in Hypophysis Region with Unusual Disturbances in Vision. (Geschwulst in der Hypophysisgegend mit ungewöhnlichen Sehstörungen.) Czellitzer.
86 Lime and Phosphorus Metabolism in Rachitis. II. (Kalk in der Pathologie der Rachitis.) J. A. Schabad.
87 Incapacity for Lactation. (Stillungs-Unfähigkeit.) W. Schultz.
88 Sexual Impressions dating from Childhood in the Psychoanalysis of Neurasthenia. (Zur Frage der infantilen Sexualität.) Marcinowski.

82. Abstracted in THE JOURNAL, June 5, 1909, page 1895.

83. **Antistreptococcus Serum Derived from Monkeys.**—Zangemeister has not been able to confirm in the clinic or with monkeys the favorable results obtained with ordinary antiserums on guinea-pigs and rabbits. He thinks that monkeys should be used for the production of curative serums, and has instituted experiments in this line. The serum of highly immunized monkeys confers on mice a passive protection against streptococcus infection, notwithstanding the wide difference in the species. Horse antistreptococcus serum, on the other hand, failed to protect the monkey in his tests.

84. **The Momberg Belt Constriction for Operations on Uterus and Rectum.**—Neuhaus states that the Momberg technic for expelling the blood from the lower part of the body has been applied to date in 17 gynecologic surgical and in 17 obstetric cases, in other clinics, and in 5 cases of cancer of the uterus in Mackenrodt's clinic. Neuhaus gives the details of this last group, states that no injury from the belting was apparent in any instance. The stout rubber tubing is wound from two to four times around the waist and drawn tight until pulsation in the femoral artery is no longer perceptible. The belt was not applied for the laparotomies until after the abdomen had been opened. The aim is to shut off the upper abdomen as completely as possible, leaving nothing in the lower part except the lower segment of the colon and the rectum, the bladder and the internal genital organs. The pelvis has to be raised high and the patient under the influence of the anesthetic to accomplish this; after the belt has been applied the pelvis can be lowered. A few sponges serve to wall off the upper abdomen still more completely, and the viscera are thus protected against chilling, contact with blood, instruments, etc., and the operative shock is much reduced as also the danger of infection, while the surgeon is not hampered in his work by interfering loops of intestine. With very corpulent persons it may be advisable to interpose a pad of gauze over the arteries before drawing the belt tight. When this is done it is not necessary to belt so tightly. In one case the pad was applied directly to the artery, inside the peritoneum; in the others, the pad was fitted over the artery in the groove made by drawing up the belt, the compression acting through the skin. The ends of the tube are clamped together, using a blunt instrument not to cut the rubber. The incision when the belt constriction is applied should be transverse, not along the median line, the vessels and nerves in the muscles being pushed out of the way. The smaller vessels which otherwise annoy by bleeding are plugged with a clot, but after the uterus and adnexa have been removed the belt is loosened to detect any bleeding points. The peritoneum is then drawn down and the field of operation roofed over, leaving a strip of iodoform gauze on each side to drain into the vagina. The pelvis is then lowered and the abdominal incision sutured. It was noticed that the spinal anesthesia in these belted cases lasted twice as long as usual; the smaller amount of blood in the shut-off area presented less absorbing surface.

Correspondenz-Blatt für Schweizer Aerzte, Basle

April 1, XXXIX, No. 7, pp. 217-256

89 *Influence on the Mind of Conditions in the Heart. (Herz und Gemut.) G. Rheiner.
90 *Auditory Hallucinations from Salicylic Medication. (Hörtäuschungen durch Salicylsäure.) J. Seitz.

89. **Relations of the Mind and Heart.**—Rheiner has noticed that acute worry, as over the sudden sickness of some member of the family, is liable to affect the heart action and even induce symptoms of oppression, much more pronounced than in the prolonged grief from some irremediable sorrow. The healthy heart soon accommodates itself to increased demands on it, but if the musculature is weak or diseased serious damage may result from the emotional disturbance. On the other hand, he has encountered a number of cases in which nervous agitation and insomnia were accompanied by a weak systolic murmur suggesting possible arteriosclerosis, the nervousness increasing to an actual psychosis in a few weeks. No sedatives or other drugs gave relief until digitalis was tentatively tried, and it worked like magic. As the pulse improved the insomnia, melancholy and sense of weakness vanished and the patient regained her normal peace of mind. One patient was a woman of 66 and she took a total of 4.5 gm. of digitalis infusion in the course of a week. Rheiner's experience thus emphasizes the importance of bearing in mind a possible connection between the functioning of the heart and psychic affections.

90. **Auditory Hallucinations from Salicylic Medication.**—Seitz reports a number of cases in which patients taking salicylates experienced auditory hallucinations for which the salicylate was evidently responsible. The hallucinations were not new ideas in any instance, but long forgotten memories of certain sounds were aroused, the roar of a certain water

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fall, the singing of birds heard in a certain garden, etc. The minute amount of chemical reaching the cells seemed to bridge the gap between unconscious and conscious memories.

Deutsche medizinische Wochenschrift, Berlin

May 20, XXXV, No. 20, pp. 873-912

91 *Diagnosis and Treatment of Tetany. F. Chvostek. Commenced in No. 19.
92 *Bismuth Poisoning and Non-toxic Substitute. (Ueber Wismutvergiftungen und einen ungiftigen Ersatz des Wismut für Röntgenaufnahmen.) W. Alexander.
93 *Behavior of Pancreas with Gastric Achylia and Anacidity. (Verhalten des Pankreas bei Achylie und Anazidität des Magens.) R. Ehrmann and R. Lederer.
94 Deleterious Influence of Meat in Diet according to Ancient and Modern Views. (Einiges über die Beurteilung der Fleischnahrung als Krankheitserreger in alter und neuer Zeit.) G. Schneidemühl.
95 *Paratyphoid Bacilli in Ice in which Fish are Packed. (Paratyphusbazillen im Transporteis der Seefische.) Rommeler.

91. **Tetany.**—Chvostek concludes his long study of this subject by reviewing the treatment, especially of gastric tetany. Profuse rinsing of the stomach, stopping feeding by the mouth, and copious saline infusion are the first indications. After a day or two of this, small doses of alkaline waters can be given and, if conditions improve, nothing further is needed; if not, time is gained for operation. The stomach tube must be introduced very cautiously or the manipulations may aggravate the spasms. Rest in bed, equable warmth, tepid baths and sweating procedures supplement the above with good effect. His experience confirms the benefit from linden-flower tea, according to von Eiselsberg's sweating technic. Morphin may be required; he has never seen any effect from the bromids; chloral by the rectum may also be given a trial. Operative measures have no effect on the concentration of the blood, which some think is the cause of the tetany; neither can the operation repair the total insufficiency of the parathyroids, which we must accept as the cause for the tetany that terminates fatally.

92. **Substitute for Bismuth.**—Alexander gives skiagrams taken with magnetic oxid of iron instead of bismuth, and relates clinical and experimental research with this powder. Larger amounts are required than for the bismuth, but as the oxid is harmless no disturbances need be feared. He gives it in a suspension with a little sugar of milk and pulverized chocolate. About 140 gms. of the oxid are required for a good skiagram of the stomach.

93. **Behavior of the Pancreas with Gastric Achylia and Anacidity.**—Ehrmann and Lederer give the metabolic findings and results of various tests in 98 cases, mostly with subnormal gastric secretion. Among the results of their research is the unexpected discovery that deficient or lacking ferments of the gastric juice and lack of normal acidity do not seem to influence the functioning of the pancreas harmfully. Its functions seem even better than under normal conditions. It is therefore unnecessary to administer hydrochloric acid to stimulate the pancreatic functioning. There is nothing to indicate that hydrochloric acid is the specific stimulant for the pancreas. With hypersecretion the increased production of pancreatic juice is probably a reflex process, to protect the intestine. The more bile in the stomach content, generally the more trypsin. The intestinal juice may be mechanically forced into the stomach during the retching movements caused by introduction of the stomach tube. To date it is impossible to estimate the functioning of the pancreas by the retrograde flow of intestinal juice into the stomach.

95. See Berlin Letter in THE JOURNAL, June 19, page 2007.

Medizinische Klinik, Berlin

May 16, V, No. 20, pp. 723-758

96 *Treatment of Neuroses of Voice and Speech. (Behandlung der Neurosen der Stimme und Sprache.) H. Gutzmann.
97 Chemical Correlations in the Organism. K. Grube.
98 Introduction of Antagonistic Microbes in War against Microbes of Nitrogenous Putrefaction in the Intestine. (Bekämpfung der Mikroben der Stickstoffäulnis im Darm durch Einführung von antagonistischen Mikroben.) Combe. Commenced in No. 19.
99 Experiences with Mechanical Devices for Respiratory Exercises. (Erfahrungen mit neueren Methoden der maschinellen Atmungsgymnastik.) A. Laqueur.
100 Influencing of Growth of Plants by Electricity. (Beeinflussung des Pflanzenwachstums durch Elektrizität.) M. Breslauer.
101 *Puerperal Fever. (Ueber Kindbettfieber.) Zangemeister.

96. **Treatment of Nervous Vocal Disturbances.**—Gutzmann expatiates on the importance of graphic registration of the movements of the vocal organs for analysis of disturbances in the voice or speech. He has devised a special technic for the purpose. In treatment he has found that vibration of the larynx by means of an electrically driven tuning fork, with the number of vibrations corresponding to the pitch of the voice, is effectual. Graphic registration of the movements of the vocal organs has also thrown new light on the mechanism of stuttering, showing abnormal methods of inspiration and expiration which can easily be corrected. Especially useful in this respect are Schreber's methods of deep breathing combined with gymnastic exercises. The apparatus for altering the positive and negative pressure in the lungs has also proved useful, the patient being entirely passive, and the inspiration and vacuum produced by the apparatus simulating the natural and normal type of breathing, which the patient thus learns to reproduce.

101. **Puerperal Fever.**—Zangmeister states anew in the course of this long study of puerperal fever that its frequency still amounts to 0.2 per cent. of all childbirths, but that it is extremely rare in women who have not been examined or the genitalia infected from without or who are free from some extragenital focus of infection. Prophylaxis must aim to keep germs away from the genitalia during the last few weeks of the pregnancy; vaginal douches must be omitted, and the woman must keep away from possible sources of streptococcus or other infection in her own household, etc. A sick servant may serve as the source for infection. Any focus on the woman's body, such as a leg ulcer, must be kept carefully covered not to allow germs to find their way thence to the genital region. The general resisting power should be kept at its highest point, and it should not be forgotten that prolonged anesthesia, severe losses of blood and chilling of the body, such as are possible during an obstetric operation, all tend to reduce the vitality and resistive power. Means to enhance the resistive forces artificially have not yet been worked out to a practical success; even antistreptococcus serum, effectual in animals, has not proved reliable in the clinic. The uterus must be emptied after the delivery and be kept empty. Retention of lochia may be caused by overfilling of the bladder, by backward displacement of the bladder from an abdominal hand applied too early, by retroflexion, by a myoma in the cervix, by excessive packing of the vulva, etc., but constipation does not seem to have much effect in inducing retention of lochia. In regard to local measures, he says that the more we learn in regard to Nature's means for preventing and overcoming infection, the more absurd seem our former therapeutic efforts in this line. Nature throws up a wall around the infectious focus to isolate it, and when we scrape away, cauterize or otherwise destroy this protecting barrier, we are liable to transform the local process into a fulminating sepsis. Either the infectious germs are already being walled off in the endometrium—when any outside measures are superfluous—or else they have already invaded the vicinity—in which case we are too late. It is impossible to root out the germs in the depths of the tissues by the most energetic curetting or cauterizing and consequently he warns to abstain from any attempt in this line as liable to open new wounds for the penetration of the virulent germs into the circulation. Prompt removal of the entire uterus may prove useful when we learn to distinguish the cases which will prove fatal without such radical measures. It is especially important, he adds, to refrain from operating on infectious pyosalpinx pockets, as the operation is liable to be followed by fistula persisting for years, or by secondary injuries. Incision and drainage of fresh puerperal peritonitis have not proved effectual to date, as the adhesions between the intestines and drains interfere with the complete escape of the secretions. Cataplasms, iodin, superheated air and similar measures are liable to benefit, but he warns against the ice-bag, and adds that superheated air must not be applied until the inflammatory process has entirely subsided, as otherwise it is liable to flare up again. He also warns against drugs to combat the bacteria, as they act on the cells more destructively than on the germs and do harm rather than good. Even metallic mercury

and colloidal silver have proved useless. The only measures that seem to promise well are a copious supply of fluids and the use of fresh normal human serum. It is safer to err on the side of feeding too little than to give more than the patient can assimilate. Fever should not be combated, but lavage of the stomach may be found useful in the vomiting of peritonitis, and for vasomotor paralysis, subcutaneous injection of adrenalin in the proportion of ten drops to a liter of physiologic salt solution. Another important point to bear in mind is the care of the skin, especially for prevention of decubitus.

Monatsschrift für Geburtshülfe und Gynäkologie, Berlin

May, XXIX, No. 5, pp. 553-676

102 Hemolytic Streptococci and the Prognosis of Puerperal Fever. O. Bondy.
103 *Prophylactic Treatment of Eclampsia and Results in 330 Cases. W. Stroganoff.
104 Fetal Peritonitis. M. Unger.
105 Cysts Developing in Gartner's Duct. (Durch Laparotomie gewonnene Gartnersche Cysten.) R. Unterberger.

103. **Prophylactic Treatment of Eclampsia.**—Stroganoff states that his method of prophylaxis of eclampsia has been applied in 360 cases at St. Petersburg and the mortality of this disease has been reduced to 6.6 per cent. for the mothers and to 21.6 per cent. for the children. He reiterates that he knows of no disease in which therapeutic measures display more brilliant results than in eclampsia, and he urges the more general adoption of his technic. It aims to prevent the convulsions by reducing the irritability of the nervous system, obtaining tranquil sleep by means of narcotics, and removing everything liable to induce irritation, terminating the pregnancy if necessary, and watching over the regular action of heart, lungs and kidneys, the patient in the most favorable positions, administering oxygen in abundance, and keeping the patient under the influence of morphin and chloral, with chloroform at first until the patient feels the effect of the chloral. His technic was described in THE JOURNAL, Sept. 20, 1902, page 733, and time has apparently confirmed his early statements as to its efficiency: In moderately severe cases, first morphin, about 0.015 gm.; in one hour or sooner, 2 gm. chloral; morphin again the third hour; chloral the seventh, and 1.5 gm. chloral again the thirteenth and twenty-first hour. Delivery is hastened as necessary and fluids are supplied by the rectum or mouth, from 150 to 250 c.c. four or five times a day. The aim is to prevent the convulsions, even if as much as 4 or 5 gm. chloral and 0.03 or .04 morphin plus chloroform occasionally are required in the course of five or six hours. If the convulsions keep up obstinately, delivery is hastened. Vaginal Cesarean section is indicated if necessary, but he has never had occasion to resort to operative measures. He is convinced that the mortality of eclampsia can be reduced to 1 or 2 per cent. if this method of treatment is begun early and systematically carried through, in the absence of serious complications. It is applicable to eclampsia before, during or after delivery, and experience has demonstrated that sedatives can be relied on as the mainstay in treatment. He adds in conclusion that in his opinion operative measures in eclampsia: vaginal Cesarean section, decapsulation of the kidneys, nephrotomy, or combinations of these, are carrying surgery to unfounded extremes.

Münchener medizinische Wochenschrift

May 18, LVI, No. 20, pp. 1001-1056

106 *Reaction Obtainable in the Blood of the Insane. (Eine Reaktion im Blute von Geisteskranken.) H. Much and W. Holzmann.
107 What Factors Determine the Size of the Heart? O. Bruns.
108 *Danger for Typhoid Bacilli Carriers from their own Typhoid Bacilli. (Gefährdung des Typhusbazillenträgers durch die eigenen Typhusbazillen.) W. Kamm.
109 *Typhoid Agglutination in Tuberculosis. E. Krencker.
110 Treatment of Abdominal Walls during the Puerperium. (Behandlung der Bauchdecken im Wochenbett und über das Frühaufstehen der Wöchnerinnen.) K. Holzapfel.
111 *Local Treatment of Nose to Relieve the Ménière Syndrome. (Eine neue Behandlungsweise des Menièreschen Symptomenkomplexes.) G. Herzer.
112 *Children of Paralytics. (Paralytiker-Kinder.) Herrmann.
113 Practical Experiences with Scabies. G. Knauer.

106. **Special Reaction in the Blood of the Insane.**—Much has found that the serum of patients with dementia præcox and manic-depressive insanity inhibits the hemolytic action of cobra venom, while other serums do not possess this property. He has examined 400 serums, including nearly 50 persons with these mental affections, and the reaction occurred positively in this group as also in persons whose parents had had these affections, and it occurred in none of the others. Both for diagnosis and from the forensic standpoint this announcement is important and it also throws light on the nature of insanity. He calls the phenomenon the psychoreaction. In one instructive case the Wassermann test was constantly negative and the psychoreaction positive, confirming the clinical diagnosis of tabes and manic-depressive insanity based on three weeks' study of the dubious case; paralytic dementia had been first accepted. The psychoreaction was positive also in persons free from circular insanity but with a history of it in their family. The reaction does not occur with the cerebrospinal fluid.

108. **Danger to Bacillus Carriers from their Own Bacilli.**—Kamm gives the postmortem findings of four typhoid-bacillus carriers and reviews others on record which show the possibility of caries of the ribs and other lesions from the persisting typhoid bacilli. In one of his cases and in Fehr's, a carcinoma developed in the gall bladder for which the presence of the typhoid bacilli was evidently responsible. His findings confirm still further the importance of diligent search for means to rid bacilli carriers of their parasites.

109. **Typhoid Agglutination in Tuberculosis.**—Krencker reports that the agglutination test with typhoid bacilli gave positive results in 8 out of 26 cases of tuberculosis, including the paratyphoid bacilli in 2. In 2 instances the agglutination test was negative at first, but became positive later. He warns against undue reliance on the agglutination test, as positive findings may be obtained in latent or manifest tuberculosis without typhoid antecedents. In the positive cases the patients all had fever.

111. **Vibration Massage for the Ménière Syndrome.**—Herzer has found vibration massage so effectual in migraine, chronic rhinitis and connected conjunctivitis, and in neuralgia of the cranial nerves, that he applied it in a rebellious case of Ménière's disease. The vibration massage was applied to the nasal mucosa and the active hyperemia in the head induced by reflex action had a favorable influence on the inflammatory process and congestion in the semi-circular canals. The case described in detail was that of a man of 40; no benefit had been derived from the usual drug treatment. The massage was applied to the nose every second day at first for twelve days, then three, then two times a week for about ten weeks, and there has been no recurrence during the two years since.

112. **Progressive Paralysis and Offspring.**—Herrmann had opportunity to examine the children of 120 married couples, either husband or wife having progressive paralysis. The number of births was about the same as under other conditions, but the proportion of childless couples is much larger, and more than half of all the children show distinct signs of physical or mental anomalies. Only 66 of the 124 children were robust; 54 suffered from some mental affection.

Wiener klinische Wochenschrift, Vienna

May 13, XXII, No. 19, pp. 661-698

114 *Hemolytic Jaundice and Occurrence of Hemolytic Phenomena in this and in Pernicious Anemia. (Ueber hämolytischen Ikterus.) K. v. Stejskal.
115 Experiments with Irritation and Phototherapy in Pemphigus, Etc. (Reizversuche bei einem Fall von Pemphigus und bei einem blasigen pemphigusähnlichen Exanthem.) S. Reines.
116 Insensibility of Tendons to Pressure in Tabes. (Abadiesches Phänomen.) J. C. Rowly.

114. **Hemolytic Jaundice.**—Stejskal reports two cases, one in a girl of 16, the other in a young clerk. The trouble seems to have begun at puberty and there was considerable lassitude with the jaundice and anemia, pains in the spleen and in the liver. All these symptoms subsided in about two weeks but recurred again at intervals, the anemia becoming constantly more severe.

Zentralblatt für Chirurgie, Leipsic

May 15, XXXVI, No. 20, pp. 705-744

117 Implantation of Ureter in the Intestine. (Zur Technik der Ureterenimplantation in den Darm.) W. W. Sseizemsky.

May 22, No. 21, pp. 745-785

118 Case of Operative Treatment of Embolism of Pulmonary Artery. (Ein nach Trendelenburg operierter Fall von Embolie der Lungenarterie.) Kruger.

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Zentralblatt für Gynäkologie, Leipsic

May 8, XXXIII, No. 19, pp. 649-680

119 Non-Toxicity of Human Fetal Organs for Rabbits. (Fötale Organe sind für den Tierkörper ungiftig.) Hilkmet.

May 15, No. 20, pp. 681-712

120 *To Shorten the Round Ligaments to Correct Retroversion. (Uterofixatio Ligamenti rotundi.) J. Jerie.

121 Chronic Endometritis. Ellerbrock.

122 *Fatal Hemorrhage from Myoma after Roentgen Exposure. (Fall von tödlicher Myomblutung nach Röntgenbestrahlung.) F. Spaeth.

May 22, No. 21, pp. 713-752

123 *Uterine Cancer at End of Pregnancy. (Zur Kasuistik des Uteruskarzinoms am Ende der Schwangerschaft.) E. Gräfenberg.

124 *Seroreaction in Obstetrics. (Méthode der Deviation du complement, angewendet bei der geburtshilflichen Physiopathologie.) D. Viana.

120. To Shorten the Round Ligaments to Correct Retroversion.—Jerie writes from Pawlik's clinic at Prague to describe, with an illustration, a method of shortening the round ligaments by taking up a loop and inserting the top of the loop under a bridge cut for it in the anterior wall of the uterus just below the original insertion of the ligament. The loop is fastened here with two or three sutures, and approximately physiologic conditions and direction of traction are restored. This technic is particularly useful when the round ligament is too frail for the Alexander-Adams operation.

122. Fatal Hemorrhage from a Myoma After Roentgen Exposures.—Spaeth's patient was a woman of 47 who refused to permit operative removal of a large benign myoma with excessive menstrual hemorrhage. Roentgen treatment was instituted, seven exposures being given, but the menstrual hemorrhage became still more abundant and the patient succumbed to heart failure about six weeks after commencement of Roentgen treatment. This case shows the necessity for working with greater intensity on the ovaries to induce atrophy as rapidly as possible, thus preventing menstrual congestion with consecutive menorrhagia. This is the only way to permit the application of radiotherapy to women whose heart and kidneys have suffered so much from constant losses of blood, from the injury and from the metabolic processes of the myoma, that an operation is too dangerous. He adds that women should not be allowed to become so debilitated from excessive menstrual hemorrhage that they are unable to stand even the most cautious treatment.

123. Uterine Cancer and Pregnancy.—In the course of a few weeks chance brought three cases of uterine carcinoma to the Kiel clinic in women in the tenth month of pregnancy and all were delivered of a living child; by the natural route in one case and by section in the others, followed by panhysterectomy. The patients were dismissed in good condition and two are free from recurrence to date, the longest interval four months. The patients were between 30 and 40, the oldest being a xii-para and the youngest an viii-para. Sarwey was able to find only 240 cases of uterine cancer in pregnant women including 6 at term. Among the 287 cases of carcinoma observed at Kiel during the last seven years, 10 per cent. were first discovered a few weeks or months after a childbirth. These with other statistics show that 21 per cent. of all such cases during the genital period correspond with a recently ended pregnancy. Fully 25 per cent. of 60 inoperable cases showed this same connection with a pregnancy. The puerperal conditions in the pelvis favor the total extirpation to a remarkable extent. In his 3 cases there had been nothing to suggest malignant disease except in one case slight hemorrhage for two days during the middle of the pregnancy, and in another slight hemorrhage two weeks before delivery, but in all the vaginal portion of the uterus was transformed into a hard, knobby crater. The Wertheim-Bumm technic proved satisfactory.

124. Deviation of Complement in Obstetrics.—Viana has been applying with placenta extract the biologic test as for serodiagnosis of syphilis, but with definite results in only three out of nineteen patients.

Gazzetta degli Ospedali e delle Cliniche, Milan

May 1, XXX, No. 53, pp. 561-568

125 *Yeast in Treatment of Abscesses in the Ear. (Il lievito di birra nella cura dell'otite circoscritta esterna.) N. Antenore.

May 6, No. 54, pp. 569-576

126 *Diffuse Hypertrophy of Submucous Connective Tissue of the Stomach. (Studio clinico anatomico ed istologico della linite plastica di Brinton.) A. Cova and G. Bono.

May 9, No. 55, pp. 577-592

127 Congenital Myatonia. (Malattia di Oppenheim.) T. Silvestri.

May 11, No. 56, pp. 593-600

128 *Prophylaxis of Recurring Tonsillitis. (Profilassi delle tonsilliti recidivanti colla detersione meccanica della cavita orale a mezzo dello spazzolino e del bicarbonato de soda in polvere.) A. Campani and G. Formiggini.

May 13, No. 57, pp. 601-608

129 Instrumental Dilatation in Eclampsia plus Cicatricial Stenosis of the Cervix. G. Carli.

May 16, No. 58, pp. 609-624

130 *Treatment of Hemorrhagic Diathesis in the Insane. (Terapia delle diatesi emorrhagiche negli alienati.) G. Gatti.

131 *Veratrum Viride in Eclampsia. U. Fabris.

125. Yeast in the Treatment of Abscess in the Ear.—Antenore reports six cases in which circumscribed otitis in the outer ear was treated internally with yeast, taken 2, 3 and 4 times a day. The tendency to recurring furuncles in the ear was promptly arrested and there has been no recurrence since. The patients took the yeast for about a week. This yeast treatment was supplemented by local application of medicated gauze. Under the influence of the yeast the pain and the morbid tendency rapidly subsided, although the furunculosis had long persisted unmodified by other measures.

126. Diffuse Hypertrophy of Gastric Connective Tissue.—Cova and Bono give the findings in a case in which the patient presented the symptoms of Brinton's plastic linitis. The autopsy findings confirm their assumption that this plastic linitis is merely one variety of cancer distinguished by an unusually slow growth.

128. Prophylaxis of Recurring Tonsillitis.—Campani relates that he has been successful in the prophylaxis of recurring tonsillitis in persons formerly extremely subject to it. His method is merely to scrub the teeth, gums and tongue down to the base the last thing at night, with a soft toothbrush dipped in dry sodium bicarbonate. Bacteriologic tests of the scrapings of the tongue and gums in the morning showed that they were comparatively sterile in comparison with the findings when this mechanical-chemical cleansing was not done, as the stagnation of the saliva during sleep favors proliferation of germs in the mouth.

130. Gelatin in Hemorrhagic Diathesis in the Insane.—Gatti has found hemorrhagic purpura rather frequent in the Udine asylum, and reports good results from subcutaneous and intravenous injections of gelatin. In a few cases he supplemented the gelatin with intravenous injections of mercuric chlorid.

131. Veratrum Viride in Eclampsia.—Fabris has found this drug so useful that he regards it almost as the specific remedy. He relates the details of five cases in which it was used, and reviews seven articles in Italian literature, confirming its value in this disease. The pulse grows slow, the blood pressure and temperature drop, while peristalsis is induced, diuresis favored and albuminuria subsides. The patients all tolerated it without disturbances.

Policlinico, Rome

May 9, XVI, No. 19, pp. 581-612

132 Aphasia. (La questione delle afasie.) A. Marina.

May 30, No. 23, pp. 677-708

133 The Agglutinating Reaction in the Milk of Palermo Goats. (La latto reazione (Zammit-test) nel latte delle capre della citta di Palermo.) G. Chimera.

Riforma Medica, Naples

April 26, XXV, No. 17, pp. 449-476

134 Anatomy and Pathology of Posterior Spinal Roots with Special Regard to the Pathogenesis of Tabes. (Anatomia e patologia delle radici posteriori spinali.) E. Levi.

May 3, No. 18, pp. 477-504

135 Diffusion in Organism of Diphtheria Toxin. A. Connio.

136 Differential Blood Count in Scorbutus. (La formula emoleucocitaria in 10 casi di scorbuto.) D. De Albertis.

May 10, No. 19, pp. 505-532

137 *Postoperative Spasm of the Intestines. (Sull'enterospasmo postoperatorio.) G. Morone.

138 Hyperemia in Surgical Lesions. (Il metodo di Bier in terapia chirurgica. Ulteriore contributo clinico sperimentale.) C. Laccetti.

137. **Postoperative Intestinal Spasm.**—In Morone's case the convalescence after a gastrectomy for carcinoma of the pylorus was disturbed by the spasm of the bowel coming on a day and a half after the operation. The patient was a woman of 57, and the enterospasm proved fatal twenty-eight days after the gastrectomy. The abdomen was opened again the twentieth day and the bowel was found in a condition of diffuse spastic contraction throughout its entire length. No benefit was derived from the laparotomy but there were no signs of peritonitis at the autopsy ten days later. Food injected into the rectum was vomited from the stomach.

Nordiskt Medicinskt Arkiv, Stockholm

XLI, Surgery, No. 2. Last indexed Jan. 30, p. 428

139 *Buttonhole Suture, a Continuous Series of Knots. (Knopfl ochnaht, eine fortlaufende Knotennaht.) N. V. Akerblom.
140 Case of Appendicitis with Transposed Colon. (Fall von Blinddarmentzündung mit Transposition coli.) Söderbaum.
141 *Early Diagnosis and Operative Treatment of Hydronephrosis. (Öfver hydronefrosen med afseende på tidig operation och tidig diagnos.) G. Ekehorn.
142 Two Cases of Pavement Epithelium Carcinoma of the Breast. (Plattenepithelcarcinom der Brustdrüse.) A. Troell.
143 Large Teratoid Tumor in Infant's Thyroid. (Zur Kenntnis der kongenitalen Geschwülste am Halse.) H. Lavonius.
144 Pathogenesis of Uterine Myoma. A. Faber.
145 *Fifty-two Operations for Ulcers in the Stomach or Duodenum. (Zur Chirurgie des Magen- und Duodenalgeschwürs.) K. Dahlgren.

139. **Buttonhole Suture.**—The illustrations show the details of this form of suture in which a hard knot is made at each of the stitches in the continuous thread as the needle is drawn out at each stitch. Instead of drawing the needle out from within the loop formed by the last segment of thread, as in the ordinary form, it is introduced from without, the last segment of thread being twisted to form one or two loops over the tip of the needle before it is drawn out. The entire suture can be removed all at once, which is another advantage. Traction may be exerted on the threads in various directions, thus obtaining the benefits of different kinds of sutures at will.

141. **Early Diagnosis of Hydronephrosis.**—The ureteral catheter is sometimes the only way to confirm the diagnosis as in 2 of the 4 cases reported by Ekehorn; in others it may be necessary to open up the region. His experience shows the possibility of complete functional restitution if the obstruction to the passage of urine is removed early, before the formation of an encysting membrane and before the kidney tissue has been irretrievably injured by the distention. He advocates an early operation as the most certain way to discover the cause of the obstruction and permit its removal, and the intervention should be restricted to this.

145. **Surgery of Gastric and Duodenal Ulcers.**—Dahlgren reviews 52 cases of operative treatment, giving the details of each and the ultimate outcome. About 38 or 45 minutes before the operation the patients are given a heart tonic, camphorated oil and strychnin, plus a little morphin are injected, and if the patient is much excited large quantities of alcohol with some opium are injected into the rectum, according to Witzel's suggestion. These preliminaries reduce the amount of anesthetic needed. After the operation the patient is returned to a warmed bed, the foot of which is raised while the patient's shoulders rest on high pillows. This bends the body at an angle with the pelvis at the lowest point. Subcutaneous infusion follows as soon as the patient is in bed, unless done during or just preceding the operation, and if the conditions require it, the infusion is made into a vein, with addition of sugar, and heart tonics. As a rule, camphor is injected every third or sixth hour and the intestines are rinsed out every fourth or seventh hour or a bowel tube introduced. Four or six times a day an enema to be retained is injected, with or without addition of sugar, alcohol or other stimulants, after the rinsing enema, or continuous infusion of a fluid into the rectum is arranged for. If there has been perforation, nothing is given by the mouth for a week, but otherwise fluid food is allowed from the first. Paresis of the bowel is combated by the above measures, possibly supplemented by injecting castor oil into the bowel before the tube is removed, urging the patient to retain it as long as possible, supplementing it at need by a subcutaneous injection of physostigmin, 0.001 gm. twice a day, half an hour before the bowel rinsing.

Ugeskrift for Læger, Copenhagen

April 29, LXXI, No. 17, pp. 445-476

146 *"Uveo-Parotid Fever." (Om en Febris uveo-parotidea subchronica, lokaliseret til Glandula Parotis og Øjets Uvea og hyppigt kompliceret med Paresev af cerebrospinale Nerver.) C. F. Heerfordt. Commenced in No. 16.
147 Roentgen Examination after Gastroenterostomy. (Gastroenterostomiens Virkemaade.) A. Pers.

May 6, No. 18, pp. 477-504

148 Indications for Treatment in Norwegian Sanatoriums. (De norske helfjeldssanatorier.) F. Gron.

May 13, No. 19, pp. 505-528

149 Small Typhoid Epidemic from Bacillus Carrier in Dairy. A. E. Nielsen.

146. **Uveo-Parotid Fever.**—Heerfordt reports three cases of a subchronic febrile infection localized in the parotid gland and the uvea of the eye, complicated with paresis of cerebrospinal nerves. He is convinced that this is a special syndrome, distinct from epidemic mumps which it resembles in some respects. The long prodromal period, from fourteen days to three months, the low, long persisting fever, the subchronic localization in the parotid gland and uvea and the frequent complicating paresis—all these differentiate it from mumps, as also its slight contagiousness. The uveitis in some cases developed before the parotitis. The paresis is evidently the work of the toxins as it subsides soon without leaving organic defect. It is possible that the disease is caused by the same microbes as mumps, but no transitional forms have been observed, although there is much to suggest that it is an atypical form of acute parotitis.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

STUDIES ON IMMUNITY. By Robert Muir, M.A., M.D., Professor of Pathology, University of Glasgow in Collaboration with Carl H. Browning, M.D., Alexander R. Ferguson, M.D., and William B. M. Martin, M.B., Ch.B. Cloth. Pp. 216. Price, $3.00. New York: Oxford University Press, 1909.

INBORN ERRORS OF METABOLISM: The Croonian Lectures Delivered Before the Royal College of Physicians of London, in June, 1908. By Archibald E. Garrod, D.M., M.A., Fellow of the Royal College of Physicians. Cloth. Pp. 168. Price, $1.35. New York: Oxford University Press, 1909.

SUTURE OF ARTERIES: An Experimental Research. By E. Archibald Smith, M.B., Ch.B., Victoria University F.R.C.S., England. Cloth. Pp. 70, with illustrations. Price, 90 cents. New York: Oxford University Press, 1909.

MEDICAL INSPECTION OF SCHOOLS. By A. H. Hogarth, M.B., B., Ch., D.P.H., County Medical Officer of Health for Buckinghamshire. Cloth. Pp. 360. Price, $2.00. New York: Oxford University Press, 1909.

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